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**WORLD MARITIME UNIVERSITY**

**Malmö, Sweden**

**UPSCALING JAMAICA'S SEAFARER  
SUPPLY: USING THE PHILIPPINES AND INDIA  
AS MODELS**

**By**

**DERON DANARIO WILSON**

**Jamaica**

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

**MASTER OF SCIENCE**

**In**

**MARITIME AFFAIRS**

**(MARITIME EDUCATION AND TRAINING [MET])**

2021

## Declaration

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

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

(Signature):

D. Wilson

.....

(Date):

09.21.2021

.....

Supervised by:

.....

Supervisor's affiliation.....

## Acknowledgments

*“Your situation at birth is irrelevant to your success”* this mantra is what keeps me going every day. I could not have envisioned getting the opportunity to complete my MSC at the World Maritime University, given my situation at birth. For this opportunity, I am grateful. I would like to use this time to express my gratitude to everyone who helped make this paper a success. First and foremost, I want to express my gratitude to the heavenly father for providing me with the strength, protection, and numerous blessings to complete this dissertation.

I was in Malmo, Sweden, when I wrote this paper, and I was not in Jamaica for the birth of my first child, Brielle Faith Wilson, which was extremely difficult. I want to express my gratitude to Rena Morris, my child's mother, for going through that difficult time without me, taking care of our child, and supporting me with her words of encouragement and advice while I was away.

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## **Abstract**

Title of dissertation: **Upscaling Jamaica's seafarer supply: using the Philippines and India as models.**

Degree: **MSc**

The maritime industry is crucial to the global economy, the scarcity of seafarers is an urgent concern. Seafarers are in short supply right now and will continue to be so in the foreseeable future. This study examines Jamaica's position as a seafarer labor market through the prism of the industry's apparent scarcity of seafarers (officers) while also providing insight into the Jamaican maritime education and training system as a tool for nation-building if the possibilities are explored. Previous studies have almost exclusively focused on specific jurisdictions, but as far as we know, very little research has investigated Jamaica as a maritime labor market. A mixed-method research methodology was used to collect empirical data from Jamaican maritime experts and seafarers, which included both interviews and questionnaires. The study also examined official papers, articles, and other secondary data on the Philippines' and India's position as two major labor suppliers. The study found that Jamaican seafarers are good communicators, highly trained, and have good cross-cultural skills, making them compatible with a multicultural crew. However, the supply of Jamaican seafarers continues to be low due to several challenges, including a lack of government support for the sector and a lack of awareness about the career. The research also identifies challenges, opportunities and strategies to address the challenges if Jamaica decides to increase its seafarer supply instrumentally.

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## List of Abbreviations

|        |   |
|--------|---|
| BIMCO  | Baltic International Maritime Council   |
| CMU    | Caribbean Maritime University   |
| DGS    | Directorate General of Shipping   |
| GDP    | Gross Domestic Product  |
| GNP    | Gross National Product  |
| ICS    | International Chambers of Commerce  |
| ILO    | International Labor Organization  |
| IMO    | International Maritime Organization   |
| ITF    | International Transport Workers Federation  |
| MAJ    | Maritime Administration of Jamaica  |
| MARINA | Philippines Maritime Industry Authority   |
| POEA   | Philippines Overseas Employment Agency  |
| STCW   | International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, 1978, as amended. |
| UNCTAD | United Nations Conference on Trade and Development  |
| WMU    | World Maritime University   |

# CHAPTER ONE

## 1. Introduction

### 1.1 Background to the study

Sea transport accounts for over 80% of all international goods commerce. On average, ships move around 11 billion tons of commodities (United Nations Conference on Trade and Development, [UNCTAD], 2020). Based on the current global population, this equates to approximately 1.5 tons per person. The ability of shipping to transport products and materials from their point of origin to their final destination underpins modern existence (International Chambers of Shipping [ICS], n.d.). Doumbia-Henry (2020) postulated that shipping is the most global of industries. The shipping industry has proven vital to global supply chains since it is the most effective and environmentally friendly transportation of goods over long distances. The maritime industry has long had an impact on the global economy. The bulk transfer of raw materials, oil and gas products, food, and manufactured items across international borders is easier than ever before. Without international shipping, transcontinental commodity commerce would not be possible (ISF Institution of Research and Education, 2020).

Shipping has contributed significantly to the growth of the global economy, and to maintain an efficient and sustainable shipping industry, it is critical to have quality and quantity seafarers to operate merchant ships worldwide as required (Patchiappane, 2018). However, BIMCO & ICS (2021) indicated that the maritime industry faces a shortage of seafarers, which is expected to worsen in the near future. The anticipated shortage of seafarers presents an opportunity for small island developing states to improve their global seafarer supply. This background examines the current situation of world seafarer supply and Jamaica's status as a maritime labor market producing seafarers trained and qualified in accordance with the International Convention on Standards of Training, Certification, and Watchkeeping (STCW).

### 1.2 World merchant fleet and world trade

International shipping is a derived demand that positively correlates with world trade; when trade increases, likewise, shipping activities increase. The year 2020 saw an expansion in the total number of the world shipping fleet. The total amounted to 98,140 ships of 100 gross

tons and over, equating to 2,061,944,484 d.w.t of capacity. This reflected a 4.1 percent increase in the world merchant fleet of 2019 (UNCTAD, 2020). The volume of global trade is constantly expanding on an annual basis, resulting in a significant increase of ships and a commensurate increase in demand for seafarers. Seafarer demand is derived from increased shipping fleets, just as shipping is derived from trade. Therefore, it can be accepted that the growth of global maritime trade significantly influences the seafarer's demand.

### 1.3 Seafarers shortage

The maritime transportation industry's success depends on its ability to operate safely and efficiently. The industry, which employs over 2 million devoted and well-trained marine experts, is responsible for keeping the world economy running (BIMCO & ICS, 2021). Despite seafarers' contribution and impact on society, ever yet so often, the true heroes and heroines that ensure the safe and secure operation of the industry are not recognized or even spoken of: "out of sight, out of mind." For a sustainable shipping industry, emphasis should be placed on the future of seafarer supply. Wang (2016) claimed that the future supply of seafarers is looking bleak, hence it can be argued that maritime labor is currently scarce and will become even more inadequate.

The scarcity of seafarers is a current issue affecting the maritime sector. The seafarer labor market has several issues, the most severe of which is a shortage of seafarers, particularly officers. The sector is experiencing a shortage of ship officers, projected to intensify as the global economy recovers. (Caesar, et. al 2013) attribute the shortage of seafarers to a high attrition rate amongst officers. Likewise, Nguyen et al. (2014) believes that the shortage of seafarers is more likely to worsen soon if increased attention is not given to the effective recruitment and retention of seafarers to stabilize a healthy supply of skilled workers to the global maritime labor market.

According to BIMCO & ICS (2021), the world fleet of merchant's vessels would continue to increase for the next decade, along with the demand for STCW certified seafarers. The report suggested that unless seafarer quality and volumes are improved, there will be a scarcity of officers to meet the expanding demand. There is currently an imbalance between the supply and demand of seafarers as demand for officers continues to outweigh the supply for the past 16 years (see figure 1). Furthermore, the quantity of STCW-certified seafarers is not keeping

pace with the increased tonnage entering the market. According to the report, there were around 1,881,320 seafarers worldwide, with 883,780 officers and 997,540 ratings. As the need for seafarers grows, it is expected that by 2026, the total number of seafarers required will be at 2,016,540.

The continuous decline in seafarers has hinted at negative consequences for the maritime industry; such figures have caused severe alarm among all industry stakeholders. As a result, a solution to the looming problem is urgently needed.

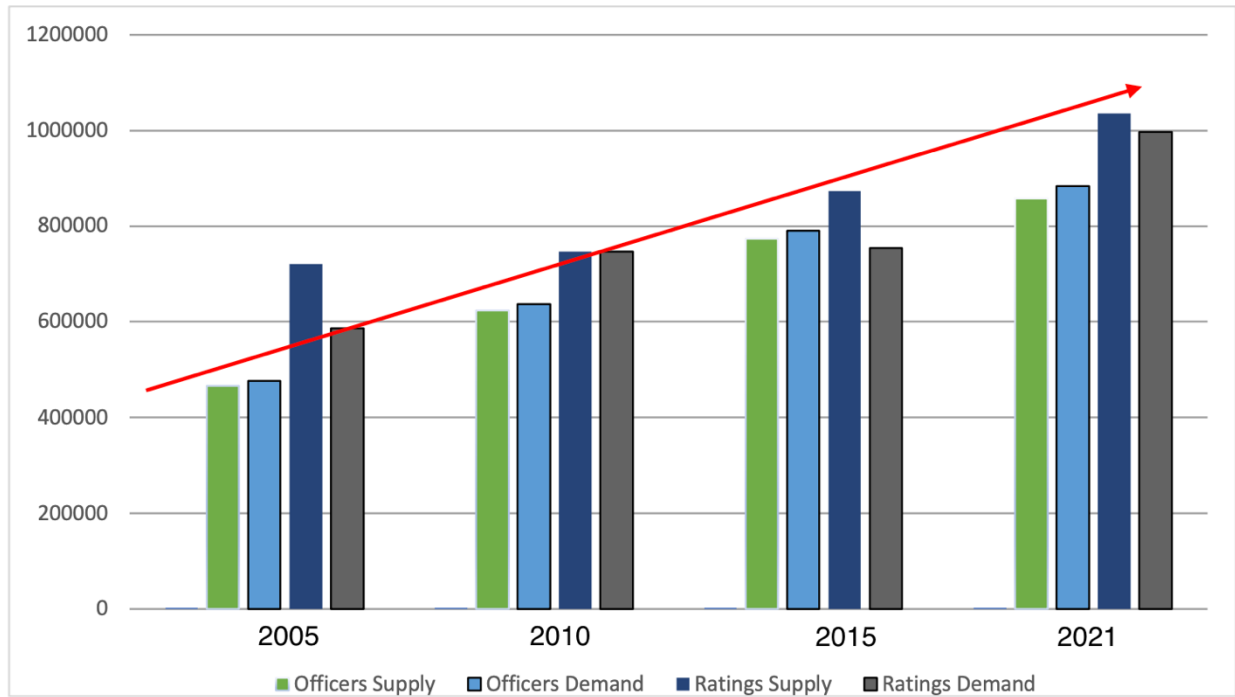


Figure 1: Seafarer Demand-Supply balance by year (Adapted from BIMCO and ICS, 2021)

The shortage of seafarers can be attributed to several industry and societal factors. According to Barnett et. al. (2006), unlike most other professions, seafaring requires people to leave their homes and spend long periods working and socializing in a cramped environment onboard ship that are mostly cut off from the rest of the world. Like other hazardous industries such as mining, seafaring is regarded as one of the most dangerous. Likewise, Slišković & Juranko, (2019) pointed out that despite several improvements in the shipping industry, seafaring occupation is a demanding, stressful, and high-risk occupation with potentially adverse effects on the physical and mental well-being of the seafarers. Further writers such as Banerjee (2020) believe that people who work in an enclosed environment, such as seafarers, are more prone to psychological imbalance. The profession requires individuals to make a great commitment by being away from their loved ones for lengthy periods while working in dangerous conditions. As

shore-based conditions improve, many individuals are losing interest in the profession of seafaring. The following are just a few of the factors that contribute to the issue of a seafarer shortage.

#### 1.4 Trends in global seafarer supply

The leading role of the traditional maritime nations such as Europe, North America, and Japan has been relinquished in supplying seafarers to the global market (NGUYEN et al., 2014). Traditionally, these maritime states were the primary suppliers of seafarers, but crewing became very expensive with development. The popularity of the open registry from the 1960s gave ship owners an alternative to flag their vessels in less developed countries that offered cheaper labor. According to Galić et al. (2012), the rise of seafarers from developing nations and the reduction of seafarers from industrialized countries is mostly due to rising labor costs. Galić et al. (2012) went on to say that a first mate in the United Kingdom is paid more than a first mate in the Philippines and that they could never be paid the same as or even close. The existing pool of seafarers continues to decrease from the traditional maritime nations. The source of maritime labor has shifted significantly since the 1960s. In 2021 biggest providers of seafarers are developing economies, with China, the Philippines, Indonesia, the Russian Federation, and Ukraine estimated leading as the top five largest supply countries of all seafarers (see table 1 below) (BIMCO & ICS, 2021).

The evidence is consistent with the viewpoint that the future supply of seafaring officers will increasingly be oriented towards less developed countries. As a result, Jamaica's ability to enhance its seafaring supply and capitalize on this opportunity as a developing country will be investigated.

**Table 1**

**Estimated five largest seafarer supply countries.**

|          | <b>All Seafarers</b> | <b>Officers</b>    | <b>Ratings</b>     |
|----------|----------------------|--------------------|--------------------|
| <b>1</b> | Philippines          | Philippines        | Philippines        |
| <b>2</b> | Russian Federation   | Russian Federation | Russian Federation |
| <b>3</b> | Indonesia            | China              | Indonesia          |
| <b>4</b> | China                | India              | China              |
| <b>5</b> | India                | Indonesia          | India              |

Note: Adopted from “Seafarer Workforce Report: The global supply and demand for seafarers in 2021” by BIMCO & ICS, 2021, p. xii. Together these five countries represent 44% of the global seafarer workforce supply. Copyright 2021 by BIMCO

### 1.5 Jamaica's overview

The islands of the West Indies, from the inception of human settlement, have been populated by the Seaborne diaspora. Historically the Caribbean people and the sea have shared a profound relationship. This sea is a source of livelihood and food for the people, a route for commerce, communication, and a bringer of threats and opportunities to the islands' inhabitants.



Figure 2: Showing Central America and Caribbean countries (Worldatlas, 2020)

Cobley (2007) postulated that the sea occupies a significant place in Afro-Caribbean identity, for many formerly enslaved to the sea represent freedom. Due to the shared trauma endured in the middle passage of slavery, there were seeds of a new relationship; hence the term shipmate was a familiar term used among enslaved Africans in the Caribbean.

After the emancipation of slavery throughout the British Empire in 1834, even though the emancipation terms were designed for formerly enslaved to seek employment on the plantations, the sea provided an alternative for black employment. The growing Afro-Caribbean's searching for jobs at sea coincided with steam shipping from the 1840s onward, increasing demand for unskilled laborers. Throughout the 19<sup>th</sup> century, the rise in steam shipping was accompanied by the rise of west Indian seafarers on British ships (Cobley, 2007).

Jamaica is a former British colony and it is the third-largest Caribbean Island, following Hispaniola and Cuba. The island covers 10,991 sq km (4244 sq mi) (World Atlas, 2020). With 2.93 million people, Jamaica is the largest and most populated island in the English-speaking Caribbean. Due to poor growth, large public debt, and sensitivity to external shocks, Jamaica is an upper-middle-income economy that is still suffering from slow GDP growth of 13.81 billion US dollars in 2020 and a GDP per capita of USD 4,664.529 (World Bank, 2021).

The island of Jamaica is strategically situated in the center of the Caribbean Sea with the Panama Canal and major ports in North America, South America, and the Caribbean, all within



proximity. The island is situated at the crossroads of two main intermodal trade routes. The country has a rich maritime history; throughout 1800 Port Royal, Jamaica was one of the busiest ports in the Caribbean. In the seventeenth century, Jamaica was a thriving commercial hub because of its accessible, broad, and deep natural harbor. The heavily inhabited hamlet, located on Jamaica's south coast, was visited throughout the year by over one hundred commercial vessels from Europe, Africa, North America, and the Caribbean. Port Royal, Jamaica, was the location that several former enslaved Jamaicans board ships for employment.

In the twenty-first century, Jamaica has risen to become one of the most popular cruise destinations in the Caribbean in 2021. Over half of the Caribbean's two million cruise tourists visit Jamaica each year (Jamaica Travel Services, 2021). The island of Jamaica possesses a number of advantages that, if fully exploited, may help the country's maritime interests grow.



Figure 3: Showing Map of Jamaica (World Atlas, 2020)

Historically the sea and the coastal areas of Jamaica play an important part in the country's social and economic life. This is evident in the fact that over half of all economic assets, such as air and sea port facilities and tourism infrastructure, are concentrated in coastal districts, and around 70% of the population lives there. However, Jamaica have been reluctant to maximize on the full benefits that the maritime space has to offer, such as human capacity building more specifically maritime education and training.

While Jamaica is nowhere close to the top suppliers of seafarers to the global market, Jamaica has supplied a small portion of seafarers over the years (see table 2). Jamaica is a developing maritime nation that aims to supply officers who will stay in the profession as a seafarer relatively long (Osler, 2008). According to Jamaica Gleaner (2019), Rear Admiral Peter

Brady, the director-general of the Maritime Authority of Jamaica (MAJ) in an interview, opined that promoting seafaring as a viable career is high on the Jamaican government agenda. The government of Jamaica has been actively upgrading and expanding facilities to increase Jamaica's seafaring output. The government also aims to strengthen agreements with ship owners to partner with Jamaican institutions to train seafarers. Brady further claimed that Jamaica is a growing seafarer nation, and it is the primary source for tertiary education and training in the Caribbean (The Gleaner, 2019). The table below displays the supply of seafarers in Jamaica over an eight-year period.

**Table 2**

**Examination and certification of seafarers conducted between 2010-2018**

| <b>Period</b> | <b>COC Revalidated</b> | <b>COC New</b> | <b>Endorsement attesting further Training</b> | <b>Certificate of Proficiency</b> |
|---------------|------------------------|----------------|---|-----------------------------------|
| 2010/2011     | 13                     | 52             | 52  | 0                                 |
| 2011/2012     | 22                     | 19             | 60  | 0                                 |
| 2012/2013     | 18                     | 50             | 62  | 0                                 |
| 2013/2014     | 29                     | 66             | 51  | 0                                 |
| 2014/2015     | 26                     | 31             | 41  | 0                                 |
| 2015/2016     | 44                     | 53             | 11  | 127                               |
| 2016/2017     | 151                    | 70             | 0   | 874                               |
| 2017/2018     | 43                     | 26             | 0   | 357                               |

Notes: Adapted from the Maritime Authority of Jamaica Annual Report 2017-2018. P. 23  
<https://maritimejamaica.com/Portals>

## 1.6 Problem statement

Seafarers are an essential component of the safe and efficient operation of the global maritime transport system, and the COVID-19 has brought much global attention to the essential role of the seafarer workforce (BIMCO & ICS, 2021). The COVID-19 pandemic coupled with societal and other industry-specific factors have made the profession less attractive. The shipping industry is vital for trade and the efficient flowing of the global supply chain, which contributes significantly to the development of countries. To achieve a sustainable future, a constant supply of seafarers must be available at the right place and at the right time when needed. Jamaica, a coastal state with its strategic geographical location in the center of the Caribbean Sea, possesses several potentials to increase its seafarer supply. However, there is a lack of research on Jamaican seafarers and the seafaring supply to the global maritime industry. This research aims to contribute to the existing literature on the seafarer supply of Jamaica. This research will also examine the seafaring supply factors in Jamaica and other major seafarer supply countries.

## 1.7 Research motivation

Jamaica has been applauded for its strategic geographical location and its rich history of maritime activities in the western hemisphere. However, the question does linger; Has Jamaica adequately maximized its maritime advantage compared to other coastal developing states? Over 80% of all international goods trade is carried out by sea (UNCTAD, 2020), and seafarers are required for such transactions. Considering seafarers are an important part of a vessel's safe and secure operation, a career as a seafarer can be both intriguing and lucrative. As a result, providing seafarers is a lucrative industry with major rewards on an individual and national level. Jamaica may benefit from the industry's benefits by strategically increasing its seafarer supply.

According to Schmid J. et al. (2016), Jamaica's development has been categorized by frustration and decline; and represents one of the worst-performing economies in the region. Over the past 20 years, Jamaica has experienced the slowest economic growth in the Latin America and Caribbean region, growing at an average of less than 1% annually. The country has a relatively high unemployment rate of approximately 9 percent (Statistical Institute of Jamaica

[STATIN<sup>1</sup>], 2021), which contributes to its economic stagnation. Although inequality in Jamaica is lower than in most Latin American and Caribbean countries, poverty remains high at an average 19 percent (World Bank, 2021). Additionally, the relatively high levels of crime and violence underscore the importance of addressing youth unemployment and education. Hence, creating a conducive environment that promotes training, world-class certification, and seafarers' employment may increase seafarers' output and, by extension, contribute to Jamaica's economy and nation building.

In addition, despite the progress made by Jamaica's contribution of seafarers to the maritime industry over the years, there is very little research about Jamaica as a maritime labor market. Hence this study on Jamaica's seafaring position is essential and will contribute new knowledge to this area of research.

## 1.8 Research aims and objectives

### 1.8.1 Research Aims

The study aims to examine at Jamaica's position as a maritime labor supplier and the possibility of instrumentally increasing its STCW qualified seafarer supply by examining the Philippines and India as examples. The researcher's goal is to examine the factors that influence seafarer supply in Jamaica to determine possibilities for Jamaica to utilize these factors to increase its supply of seafarers.

### 1.8.2 Research Objectives

The research objectives are:

1. To examine Jamaica's current position as a supplier of seafarers to the global labor market.
2. To compare the socio-economic factors that contribute to the development of the seafaring labor market in the Philippines, India, and Jamaica.

---

<sup>1</sup> STATIN is a Jamaican government agency tasked with collecting, compiling, analyzing, abstracting, and publishing statistical data on the country's commercial, industrial, social, economic, and general activities and conditions.

3. To identify the merits and demerits of the factors related to Jamaica instrumentally increasing its seafarer supply.
4. To identify the challenges and opportunities for Jamaica should the country decide to improve its seafarer supply.
5. To make recommendations on how best these challenges can be overcome.

### 1.9 Research questions

The research is tasked to provide a critical response to the following questions:

1. What is Jamaica's current position as a global supplier of seafarers in the maritime industry?
2. What comparison can be made between the Philippines, India, and Jamaica socio-economic factors contributing to the seafarer labor market?
3. What are the merits and demerits of Jamaica instrumentally increasing its seafarer supply based on lessons from question 1 & question 2?
4. What challenges and opportunities exist for Jamaica should the country decide to improve its seafarer supply?
5. How best can these challenges be overcome?

### 1.10 Expected outcome

The results of this research are expected to reveal the conditions that gave the Philippines and India a competitive edge to be major global seafarer supplying countries. The study is also expected to highlight Jamaica's strengths that could potentially be maximized to improve Jamaica's seafaring output and the shortcomings in Jamaica that hinders the county's ability to become a major seafarer labor market. Additionally, the findings will articulate the requirements that Jamaica needs to implement to overcome the challenges to increase its seafaring output.

## 1.11 Summary

The shipping industry plays a crucial role in the sustainable development of global economies. To ensure the industry's survival, a sustainable supply of STCW qualified seafarers is required. UNCTAD (2020) report predicts that world trade will continue to increase. Given that the shipping industry is a derived demand, it can be anticipated that the demand for seafarers will increase parallelly. The study sets out to examine Jamaica's position as a maritime labor market by looking at the Philippines and India and the possibilities of Jamaica instrumentally increasing its seafarer supply to meet the anticipated demand.

# CHAPTER TWO

## 2. Literature review

### 2.1 Introduction

The shipping industry has been at the vanguard of world growth since the first goods were conveyed by sea more than 5,000 years ago. The world's maritime roadways were opened by Columbus, Diaz, and Magellan's great voyages. The same pioneering spirit brought supertankers, container ships, and the intricate fleet of specialized vessels transporting a ton of cargo every year (Stopford, 2008). Likewise, the sustainability of the industry is parallel with skilled seafarers.

The career of seafaring is one of the oldest professions known to humanity, and it is laced with long-standing maritime tradition (Farthing, 1987). From the beginning of people sailing the vast open oceans crewing of vessels has played a significant role in the shipping sector. Over the years, the industry has undergone several structural changes that impact the seafaring labor market structure. The years of the 1960s saw a shipping industry that was absorbed deep in steel, technological and innovative changes that paved the way for the construction of bigger and faster

ships, The Industry also experienced another significant structural change in the 1980s that impacted the structure of seafaring labor market, and that was the introduction of the open registry (Dacanay, 2005).

Nevertheless, despite the various structural changes, the occupation has been characterized by the immense danger that negatively impacts the attractiveness of seafaring as a career and, by extension, global seafarer supply. According to Manuel & Baumler (2020), the immense danger has always been embedded and recognized as part of the seafaring profession, which predominantly results from the nature of the work and the harsh environmental context in which it is undertaken. Furthermore, Lau & Tsaib (2010) expressed a similar viewpoint that shipping is one of the most dangerous industries in the world, and the career of a seafarer is viewed as high risk due to the unpredictable nature of work and condition onboard vessels, which often leads to injuries, ill-health and even loss of life. The occupation is characterized by spending a long time away from home and family, hence seafarer's loneliness and isolation, cultural difference problems are among the primary reason for the low retention rate of seafarers and, by extension, seafarer shortage (Livingston et al. 2015).

This literature review aims to provide a thorough critical analysis of the existing knowledge about seafarers' global supply and demand, international standards for training and certification of seafarers, the open registry system, and an overview of the Philippines and India's experience. The rationale behind this chapter is to synthesize the existing literature and identify the current gaps to produce new knowledge.

## 2.2 The Seafarer

According to Borovnik (2004), the definition of a seafarer must take into account the fact that they live in cramped quarters, crisscrossing maritime space worldwide, circulating in long-term contracts between home and work, and maintaining transnational ties. Seafarers are members of both a global economic system, where they compete for jobs with people from other countries, and as social beings. These occupational characteristics provide the foundation of a shared identity among all nationalities of seafarers, resulting in a cosmopolitan mentality. Barnett et al. (2006) postulated that seafaring is a way of life that knows no national boundaries and is reflected in the "brotherhood" of seafarers wherever they may come from.

Seafarers are generally divided into two groups of people who work on board ships under the overall leadership of the captain: the deck department and the engineering department. The Chief Officer, Second Officer, Third Officer, and some common sailors are among the crew members who operate in the deck department, graded from high to low. The chief engineer, second engineer, third engineer, and a few regular seamen are among the crew members who operate in the engineering department. The captain, deck officers, and engineers are referred to as "ship officers," and they are all in possession of an official certificate of competence. Ratings are ordinary seamen, or able seamen, who do not have the same qualifications as officers. Fundamentally, seafarers are responsible for the safe operation of the ship, carrying out daily maintenance of the vessel, and handling cargo at ports (Ma, 2021).

Glenn (2008), in agreement with the work of Ma (2021), posits that the occupation of Seafaring can be categorized into several areas based on skills, qualification, and department of which one works onboard a ship. Onboard the vessel, general workers are termed ratings and are generally less skilled and less qualified than officers. Onboard there are also Training offices or cadets. Another category of laborers onboard are the officers; they are categorized into two principal categories, the Deck and the Engine. The deck officers are trained to run and operate the vessel navigation and other functions.

In contrast, the engine officers are trained to operate and maintain the engines and other technical tasks vital to the safety of the equipment. While the vessel has different roles and positions, such as radio officer and Pursers, the Deck and the engine remain the most significant. Hence a seafarer may be categorized as either a Cadet, a Ratings, or an officer.

## 2.3 Worldwide supply and Demand for seafarer

### 2.3.1 Seafarer Demand

Total global demand for seafarers is determined by total global demand for marine transportation and several other influential factors such as financial sectors, legislation, technological changes, number and size of ships in use, use of labor-saving technologies, and investment climate. In this case, the investment climate, as well as flag state regulations, have a direct impact on the employment of labor-saving technologies (and the resulting reorganization)



onboard ships. Furthermore, the present investment climate and the current need for maritime transportation influence the number and size of ships in operation, and determine the current demand for seafarers (Wagtmann & Poulsen, 2009). Likewise, in support of this argument, Drewry Maritime Research (2021) claimed that the number of vessels and sizes in the global cargo-carrying fleets is the primary driver of the demand for seafarers. According to Stopford (2008), due to the tremendous expansion of international trade, the demand for maritime transportation has grown faster than world production during the last five decades. To meet the rising demand of seafarer, shipowners have increased the efficiency of their fleets. From the 1950s to the 1970s, the average size of tankers and bulkers increased exponentially, and the average size of container carriers and special carriers has grown even more rapidly since then. Maritime labor productivity has increased because of automation; as a result, the number of seafarers needed to transport a given cargo has decreased. Still, the overall increase in the global commercial fleet has kept total demand for seafarers essentially consistent from the 1980s to the present (Wagtmann & Poulsen 2009).

### 2.3.2 Seafarer Supply

Traditionally, seafarers were employed from the countries that manufactured and operated ships. As a result, Dutch seafarers worked on Dutch ships while British seafarers worked on British ships. However, since World War II, the situation has completely changed. Seafaring has evolved into a highly globalized profession. Most of the world's seafarers today are supplied by a small number of countries. Even though countries like Japan, Norway, and Germany hold many commercial ships, foreign crews control their ships. The majority of international seafarers are generally from Asia and East European countries (Ma, 2021). Consequently, the following question does linger as to why a situation like this is? Does a country-controlled fleet have any relationship with the number of seafarer supply? Does a country's GDP per capita influence the supply of seafarers?

According to Wu & Sampson (2005), it has long been assumed that seafarers' salaries and working conditions in the global labor market are such that ship operators can only attract persons who have few other possibilities for remunerative shore-based jobs. If this is the case, a link between good economic indicators and seafarer supply should be demonstrated. Wu & Sampson (2005) argued that Per capita gross domestic product is one relevant indicator that may

be inferred. When juxtaposed to per capita GDP, there is undeniable a link between global seafarer supply and per capita GDP, with seafarer supply decreasing as per capita GDP rises.

It is concluded that the seafarer supply has an inverse relationship with shore-based economic development. The fraction of global seafarer supply decreases as GDP per capita rises. In other words, people in low-income countries are more likely than those in high-income countries to be employed/engaged in the occupation of seafaring. Likewise, Ma (2021) agrees that the two variables are negatively correlated; the wealthier a country is, the least likely it is to be a significant source of seafarers, except for the case of the United Kingdom.

Regarding the supply of seafarers in correlation to the national fleet, Ma (2021) claimed no association between the two variables for the top ten largest seafarer suppliers, with the coefficient of correlation R2 at 0.17 (see figure 5). Though there is a positive link in two countries, China and the United Kingdom, there is none in the other eight. Although East European countries and India have a relatively small national fleet, this does not preclude them from being major seafarer suppliers. The situation of the Philippines, which controls just 0.1 percent of the worldwide fleet yet provides nearly 16 percent of the world’s seafarers, is particularly notable.

| Seafarers   |      |              | Fleet |              | GDP/Capita |        |
|-------------|------|--------------|-------|--------------|------------|--------|
|             | Rank | Of total (%) | Rank  | Of total (%) | Rank       | Usd    |
| Philippines | 1    | 15.8%        | 47    | 0.1%         | 125        | 2,924  |
| China       | 2    | 12.0%        | 3     | 9.1%         | 71         | 8,113  |
| India       | 3    | 7.5%         | 17    | 1.3%         | 142        | 1,723  |
| Ukraine     | 4    | 5.0%         | 40    | 0.2%         | 132        | 2,194  |
| Russia      | 5    | 4.8%         | 20    | 1.1%         | 68         | 8,929  |
| Poland      | 6    | 2.9%         | 45    | 0.2%         | 57         | 12,316 |
| Romania     | 7    | 1.6%         | 64    | 0.1%         | 64         | 9,465  |
| UK          | 8    | 1.5%         | 9     | 2.8%         | 19         | 40,096 |
| Croatia     | 9    | 1.4%         | 43    | 0.2%         | 58         | 12,095 |
| Latavia     | 10   | 0.9%         | 65    | 0.1%         | 52         | 14,060 |

Figure 4: The relationship between seafarer supply, controlled fleet, and GDP per capita 2015.Ma (2021) based on data from Drewry (2015), UNCTAD (2016), and IMF (2016)

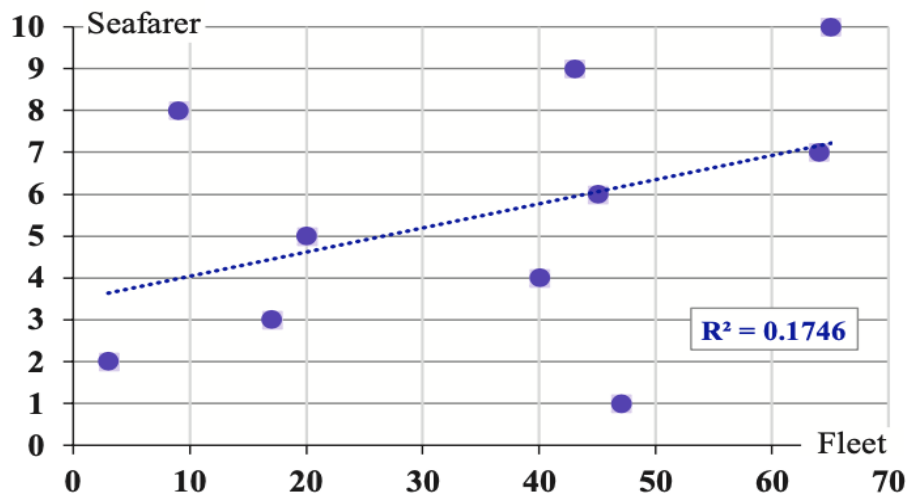


Figure 5: Correlation between seafarer and fleet supply 202,1Ma (2021), based on data from Drewry, UNCTAD, and IMF. Note: this is about the world’s top ten seafarer supply countries and their rank of fleet supply. The two are not correlated.

#### 2.4 International standards for training and certification of seafarers

According to Glenn (2008), the competency to be qualified to become a seafarer is embodied in the International Maritime Organization (IMO)<sup>2</sup>, Standards of Training, Certificate, and Watchkeeping Convention (STCW), and all member countries and parties to the convention are required to adhere to the terms of this conventions within their jurisdictions.

The STCW 78, as amended, is the first international convention that sought to establish mandatory minimum knowledge and training requirements for seafarers. Underpinning this convention is the philosophy of quality assurance; the convention's ultimate purpose is to ensure that seafarers are harmoniously trained and certified to international minimum standards to ensure the safety of life, properties, and the environment at sea (Manuel & Baumler, 2020).

According to the International Maritime Organization (2019), the Standard of Training, Certification, and Watchkeeping convention was first introduced in 1978. Prior to the convention Individual governments used to set training, certification, and watchkeeping criteria for officers and ratings, frequently without reference to procedures in other countries. As a result, even though shipping is the most worldwide of all businesses, standards and practices vary greatly (IMO, 2019). This convention is an important International Maritime Organization (IMO)

<sup>2</sup> The International Maritime Organization, formerly known as the Inter-Governmental Maritime Consultative Organization, was established by convention in 1948. The Convention was signed in 1958 and given a new name in 1982. The Imo is a United Nations specialized agency.

instrument that regulates the competency of seafarers globally to a minimum standard. Evans et al. (2017) claimed that to be able to work onboard ships that traverse international waters legally, seafarers must be STCW certified. Evans et al. (2017) further stated that the STCW 78 convention as amended applies to all ranks that work onboard the vessel that flies the flags of jurisdictions that are party to the convention.

## 2.5 The Role of Open Registry/Flag of Convenience (FOC)<sup>3</sup> in Seafarer Supply

Interrogating the global supply of seafarers, it is essential to discuss the role and place of the Open registry system, which is sometimes called “Flag of Convenience” or “Flag of Necessity.” The open registry system has a considerable influence on the composition of the global seafarer labor force. Examining the open registry system Kasoulides, (1986) expressed that the open registry is a system that allows for a vessel to derive its nationality under the jurisdiction of which it is registered. Under the United Nations Convention of the Law of the Sea (UNCLOS), Article 91, States are free to open a shipping registry and to set out the terms and conditions for the ships that fly their flags as long as there is a “genuine link” between the state and the ship.

Manuel & Baumler (2020) claimed that the traditional maritime nations had developed comprehensive and sophisticated maritime regimes in terms of seafarer education and legal administration framework, all of which was hinged on the high taxation of ship owners along with national control. Alderton et al. (2004), in agreement with the work of Kasoulides (1986), further claimed that due to socio-economic turmoil in the 1960s, ship owners turned their attention to cutting labor costs. To achieve more affordable labor, they took advantage of the relatively cheap labor found in countries that operated open registries. Anthony (2016) furthermore added that the period of the mid-1970 suffered an economic crisis that caused a significant decline in the freight rate and a severe increase in overcapacity. During this period, shipowners discovered that their most considerable operational costs were; the cost of national labor, national taxes, and regulations could be significantly reduced by abandoning national registries. Alderton et al. (2004) further noted that by the 1980s, labor productivity had been

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<sup>3</sup> The phrase flag of Convenience is not universally acceptable, and it is only used by a small portion of the industry, as it is considered disparaging by some and it is not mentioned in the IMO's official text.

improved considerably by capital substitution onboard ships, so it became apparent that any further saving of labor cost is to find a cheaper source of labor.

Kasoulides (1986), Manuel & Baumler (2020) shared the view that open registries were exacerbated in the early 1930s, and it is predominantly based on economic gains and other benefits such as

*“Freedom from national manning scales and regulations; wage scales and social security requirements; freedom to recruit crews of any nationality in the cheapest markets; freedom from restriction on raising or transferring capital; credit facilities, including foreign currencies and exchange control; freedom to buy, sell, or charter ships; freedom from state investigation in the event of major casualties; strict safety regulations avoidance and evasion of fishing and whaling conventions”.*

Fonssen (2016), in his work, put forward that the flag of convenience/open registry has largely replaced the national flag shipping system. The increased use of the flag of convenience is due to ship owners shopping amongst countries for the laws and regulations they are willing to pay for. Flag of convenience created the mechanism for ship owners to employ inexpensive crew drawn from the international labor pool. Fossen (2016) claimed that the chief reason for using FOC is for reduced labor costs. In agreement, Morris and Kilkauer (2001) argued that FOC regulations allow low-cost workers from a global labor pool. In 1997, flagging out to FOCs cut average yearly labor costs aboard German cargo ships by more than 74 percent.

Anthony (2016) further claimed that due to FOC, there had been a radical increase in crew composition onboard as the labor force is now pulled from seafarers globally. To add to this, Stopford (2008) claimed that shipowners changed to other countries "open registries" with less labor market constraints had driven demand for seafarers to move from the OECD to Asia and Eastern Europe during the last four decades. Likewise, Broeze (2002) argued that the composition of the crew had changed dramatically, with crew members increasingly drawn from countries with low salaries and living conditions, resulting in significant unemployment among unionized, high-wage seafarers from traditional maritime nations.

While the open registry system has its supporters, it also has a fair share of non-supporters. According to Kilkauer & Morris (2001), labor unions in OECD countries have

protested open registries, claiming that they allow shipowners to sacrifice safety while ignoring social responsibilities. The open registry system allows shipowners/managers to avoid tighter shipowner "home" national rules relating to seafarer education and training by hiring workers from a range of countries at far cheaper wage rates and conditions than would have been necessary for personnel from their own traditional maritime nations. To sum up, there is still a perception that cheap labor costs are associated with low standards, i.e., the lower the labor costs, the lower the demonstrated levels of competence (Manuel & Baumler 2020). However, Wagtmann & Poulsen (2009) does not share similar sentiments and is of the believe that quality of seafarer labor is not directly related to nationality; it depends on training, experience, and competencies.

## 2.6 Philippines as a global supplier of seafarer

With the open registry system setting the stage for owners to employ crew from all over the world, the Philippines has certainly made its name as a global supplier of seafarers. The Philippines is amongst the top-ranking countries with the largest supply of seafarers due to several advantageous factors (GPCCI, 2016). Due to the Philippine advantages, Filipino seafarers have managed to earn and sustain the position as one of the premier choices of crewing in the global maritime labor market (Lobrigo & Pawlik, 2015).

Nine hundred thousand (900,000) seafaring professionals work in the Philippine maritime industry, with roughly 400,000 of them at sea at any given time (Romulo, 2020). This maritime industry, combines with the cruise ship workers, contributes approximately \$7 billion to the national economy, accounting for 20 to 23 percent of total yearly remittances to the country. The country's population is over 100 million people and increasing at about 1.5 percent per annum at a median age of 24 years. The Philippines has a young and large workforce (GPCCI2016). The Philippines is recognized as the world's largest supplier seafarer of both officers and ratings (BIMCO & ICS, 2021)

**Table 3****Philippine's seafarer supply for the period of 2016-2020**

| YEAR | OFFICERS |          | RATINGS |          | NON-MARITIME |          | DEPLOYED SEAFARERS |             |
|------|----------|----------|---------|----------|--------------|----------|--------------------|-------------|
|      | NUMBER   | % CHANGE | NUMBER  | % CHANGE | NUMBER       | % CHANGE | TOTAL              | % CHANGE    |
| 2020 | 50,277   | (0.48)   | 93,618  | (44)     | 73,328       | (64)     | <b>217,223</b>     | <b>(54)</b> |
| 2019 | 97,400   | (32)     | 166,401 | 9        | 206,195      | 11       | <b>469,996</b>     | <b>(3)</b>  |
| 2018 | 143,090  | 43       | 153,231 | (7)      | 186,072      | 0.72     | <b>482,393</b>     | <b>7</b>    |
| 2017 | 100,185  | (0.42)   | 163,903 | 3        | 185,375      | 3.44     | <b>449,463</b>     | <b>2</b>    |
| 2016 | 100,605  |          | 159,858 |          | 179,203      |          | <b>442,820</b>     |             |

Notes: Adapted from Philippines Overseas Employment Administration (POEA) (MARINA, 2020).

### 2.6.1 Seafarers contribution to the economy

Filipino seafarers are vital to the Philippines economy. Remittance from seafarer labor contributes greatly to the economy as it makes up a huge source of the US Dollar earnings for the country. The revenue earned from seafaring helps significantly stabilize the country's balance of payment, prevent foreign exchange instability, and protect the Philippines Pesos from devaluation (Amante, 2003). The Philippines' seafaring industry has provided job opportunities for thousands of Filipino marine officers and ratings on foreign-flag ships and injected foreign cash into the economy in salary remittances, contributing significantly to the country's dollar reserves (MARINA, n.d.).

Likewise, Tarrazona (2017) reiterates the significant role of seafarers in the country's economy. It was expressed that Seafarers remit around \$5.5 billion annually back to the Philippines. The government identifies the contribution of seafarers in the country and encourages young people to consider seafaring as a means to reduce unemployment. Due to their contribution to society Martin et, al. (2004) explained that professionals' seafarers are considered highly rated. Filipinos refer to seafarers as "heroes" since they bring money into the nation and support their families. Generally, seafarers are in a situation to better able to afford to increase

their standard of living. Seafarers' remittances accounted for 9.8% of GDP and 8.3% of GNP (The Philippines Maritime Industry through the years, 2017).

**Table 4**

**Remittances of overseas Filipino workers for the period of 2016-2020**

| <b>Year</b> | <b>Sea-based Amount (In Thousand USD)</b> |
|-------------|---|
| <b>2020</b> | 6,353,522                                 |
| <b>2019</b> | 6,539,246                                 |
| <b>2018</b> | 6,139,512                                 |
| <b>2017</b> | 5,870,827                                 |
| <b>2016</b> | 5,572,148                                 |

Note: Adopted from Bangko Sentral ng Pilipinas(BSB), (MARINA, 2020).

### 2.6.2 The Philippines competitive advantage

According to Wang et al. (2016), after researching the selection of foreign seafarer supplying countries for supplying Korean vessels, using an empirical analysis by the Fuzzy method, it was discovered that the Philippines is the number one seafarer nation to supply labor for Korean vessels. The advantage of the Philippines over the other countries that were a part of the study indicated that the Philippines tend to supply sufficiently trained and educated officers to ensure the safe operation of vessels. Wang et al. (2016) further point out that the Filipinos seafarers are good communicators and tend to be fluent in English, which gave a big advantage over some other countries. The Philippines is regarded as the third-largest English-speaking country globally in terms of the number of English speakers, the language that is internationally recognized onboard ships (GPCCI, 2016). Amante (2003), in agreement, further claimed that most Filipino seafarers are good linguists that contribute to the attractiveness of Filipino seafarers.

Professor Steven McKay conducted research in 2007 where a comparison was made between the different reasons why the Filipino seafarers are appreciated and often recruited by



shipowners. In conducting his research, McKay extensively studied official material from the Philippine Overseas Employment Administration (POEA)<sup>4</sup>, (McKay, 2007).

McKay's research highlighted that structural change in the maritime industry, the legacy of the American colonial institution, and the active role of the Filipinos government are all factors that contribute to the development of the Philippines as a seafarer supply market. His research concluded that the shipowners saw Filipinos as subordinate and obedient, and as a result, the government used this opportunity to promote Filipino seafarers. In promotion of the seafarers, government, and manning agencies marketing entailing endowing the “natural “Filipino seafarers with the innate qualities of pliability, however as symbolic yet subordinate heroes. While the State promotes Filipinos as a pliable and obedient seafarer, the government simultaneously keeps the cost of employing Filipino seafarers down.

In order to keep Filipino seafarers cheap, the POEA, which determines the minimum standard contract terms, had delayed implementing the International Labor Organization's (ILO) wage recommendations for three years, using in their 2003 standard contract the 2000 ILO rate of \$385 per month for an able-bodied seaman, which remains \$50 below the 2003 ILO rate and \$915 below the unionized rate set by the International Transport Workers' Federation (ITF) (McKay, 2007). It can be seen that the government actively participated in making the country into a seafarer labor market.

### 2.6.3 Socio-economic/motivational seafarer supply factors

Furthermore, other writers have the aim to identify what motivates Filipino seafarers to go to sea. Zhao & Amante (2005) conducted research comparing Chinese's seafarers and Filipino seafarers: The study titled “A Race to the Top or the Bottom”. It was emphasized that Filipino seafarers often originate from a large family, and most of them are married with children. Eighty-one (81) percent of seafarer that was a part of the study came from the rural province and had a background of high poverty (Zhao & Amante, 2005). Seafaring as a career offers attractive remuneration compared to onshore jobs, which is why many Filipinos choose employment at Sea even though it means being away from their home and their families.

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<sup>4</sup> The Philippine Overseas Employment Administration (POEA) is the official government body with the objectives of promoting and monitoring international employment. Through market monitoring and market research, the POEA has played a vital role in the growth of the Philippines as a major seafarer labor market.

Particularly in provincial areas, children are often encouraged by their parents to pursue seafaring as a career. Later, they raise their family living standard with a job onboard through remittance (GPCCI, 2016).

The Philippines is an archipelagic state with approximately 7100 islands (Britannica 2021). According Baylon & Santos (2011) the geographical condition of the Philippines has contributed to the tendency of Filipinos to consider seafaring careers compared to other countries that don't have access to the sea. Maritime activities such as transport and fishing play a tremendous role in the lives of many Filipinos. Likewise, Barnett et al. (2006) claimed that a genuine interest in the sea and travel opportunities motivate Filipinos to become seafarers.

Manalo et al. (2015), in research titled "The challenges of Filipino seafarers onboard: basis for work-life balance," claimed that some seafarers opt to work in the business because they have heard that seafarers make a lot of money. Still, they have no idea what challenges they can face on board.

#### 2.6.4 METI structure and funding

According to the Philippines Maritime Industry Authority (n.d.) the country has 95 authorized maritime education institutes and 95 maritime training facilities in the country for seafarers' education and training. In 2006-2010, maritime schools had an average yearly enrollment of 71,200 students, with around 16 percent of those enrolled finishing after four years of study, or 11,386 pupils. The 95 training institutes offer 33 obligatory STCW-related courses and programs. The Philippines is undoubtedly the country with the widest range of quality seafarers. On the one hand, the country is the only developing country to receive significant non-state sector support for MET, which has come from a variety of private shipping companies, national shipowners' associations from countries such as Japan, Norway, and the Netherlands, and even the International Transport Federation (Hand, 2008).

#### 2.7 India's position as a global supplier of seafarer

India has positioned itself as a major human resources-supplying nation to the maritime industry, establishing itself as the fifth-largest supplier of officers and ratings in the world (BIMCO & ICS, 2021). Over the years, the state has been a major contributor to the world fleet's

supply of seafarers. Indians make up roughly 7% of all seafarers working in the world's merchant fleet. Despite the fact that Indian seafarers' market share has decreased in recent years due to their abilities and training, they remain among the most sought-after seafarers in the world (Wadhwa & Mahadevan 2019).

According to India's Director General of Shipping, the number of Indian seafarers employed globally has surpassed 150,000 for the first time. India had 154,349 seafarers working aboard merchant ships at the end of 2017, up from 143,940 in 2016, 126,945 in 2015, and 117,090 in 2014. Approximately 154,349 seafarers, 71,177 are officers while 83,172 are ratings or general-purpose staff accounting for 97,937 jobs on the nautical side and 56,412 on the engineering side. ("Record number of Indian seafarers employed," 2018).

**Table 5**  
**India's supply of seafarers between 2015-2020**

| <i>Years</i> | <b>Total Count</b> | <b>Distinct Count</b> | <b>Ratings</b> | <b>Officers</b> |
|--------------|--------------------|-----------------------|----------------|-----------------|
| 2015         | 167,181            | 126,945               | 65,048         | 35,556          |
| 2016         | 190,741            | 143,940               | 75,364         | 68,576          |
| 2017         | 200,805            | 154,349               | 83,172         | 71,177          |
| 2018         | 247,404            | 208,799               | 123,514        | 85,258          |
| 2019         | 388,598            | 234,886               | 144,930        | 89,959          |
| 2020         | 316,010            | 224,478               | 136,226        | 88,256          |

Note: DGS Circular No.8. of 2021(Directorate General of Shipping,2021)

India is the 16th largest shipping nation globally based on merchant fleet size, hence, according to Ravi (2019), the need for the training of India's seafarers is unquestioned. India's shipping tonnage amounted to 12.7 million GT (Gross Tons), with 1419 vessels in September 2019. From the total amount of vessels owned by India, 456 of these vessels transit international routes.

### 2.7. 1 India's competitive edge

India is acknowledged as a global supplier of seafarers; it is important to interrogate the factors contributing to India gaining the status and its competitive edge. According to Sasirekha & Ramani (2014), the global shipping industry is increasingly relying on India as a favored source of its current and future seafarer demand because it acknowledges that India has the means to satisfy the shortage of seafarers and the Indian academic system provides one of the strongest foundations for building high standards of skills, initiatives, professionalism and leadership required of the modern seafarers.

Varren Maritime Academy (2019) posits several strengths of Indian seafarers. It was conveyed that Indian seafarers are typically fluent in spoken English, which is the most widely used language at sea, allowing them to converse effectively with their officers and other crew members. The writer further elaborated on other qualities of Indian seafarers and claimed that Indian seafarers are taught leadership, teamwork, dedication, and hard work, all of which are necessary for properly managing ship operations. The Indian seafarers have proven themselves to be hard workers onboard ships. Working at sea is demanding since it demands seafarers to work long hours. However, Indian seafarers gain an advantage because of their willingness to complete the assignment without complaint, and their abilities remain focused on their duties.

Indian officers are particularly sought after by foreign ship owners because of their training, discipline, and maritime traditions. A combination of favorable factors has been responsible for the country's success in increased employment of their seafarers (unescap.org, n.d.). India seafarers are posed for their superiority. Bansal (2021) claimed the Indian captains command some of the largest ships in the world, the largest bulk carrier afloat, "Berg Stahl," in 2006 was commanded by two Indian captains in turns.

### 2.7.2 India's socio-economic/motivational seafarer supply factors

According to the Indian Maritime agenda 2010-2021, a study was conducted on Indian seafarers. The findings revealed that the majority of Indian trainee seafarers came from ordinary families, with half of them rating their family's financial condition as "poor," another 46% as "average," and only 4% as "above average." (Government of India Ministry of Shipping, 2011).

Sasirekha & Ramani (2014) conducted research titled “Trainee Seafarers/Mariners Perception Towards a Career in Sailing”. The research used a descriptive research design. For the study, both primary and secondary data were gathered. The study included 40 trainee mariners, and the result revealed that Indian seafarers are interested in adopting the career of seafaring because of the good salary and government tax break. The study also reveals that family and relatives play a strong role in influencing the preference of seafaring as a career among Indian seafarers. 67.5% of the respondents claimed that the family prefers them choosing seafaring as a career, 27.5% claimed that the family suggested other career options, and only 5% claimed that the family does not prefer a maritime career. The study highlighted that two-thirds of respondents' families influence and support their maritime careers, whereas 5% reported that their families do not favor them.

### 2.7.3 METI status and funding

According to Varren Maritime Academy (2019), India offers several maritime academies that train professional seafarers. Over the years, India has long been regarded as a center of excellence for providing high-quality training and education for seafarers. The number of recognized Maritime Training Institutes by the Director-General of Shipping (DGS) has surpassed 125 in India. On the DGS website, there are seven maritime university campuses (Bhargava, 2019).

The country boasts a number of well-established maritime training schools that are manned by experienced instructors and equipped with sophisticated training equipment from a variety of sources, including the government, foreign and local shipowners and agents, and powerful seafarers' unions. The Indian government plays an active role and has been a strong backer of the industry, collaborating closely with companies and labor organizations to promote seafaring in the country (unescap.org, n.d.).

With IMO-STCW'95 guidelines, the Indian government liberalized its policy and invited interested private players to take up the responsibility. The first free-market initiative in the maritime training and education sector came in 1997. To fulfill the predicted massive training demand, DGS allowed private players authorization to build up maritime training facilities on a commercial basis (Ravi, 2020). As a result of the initiatives taken by the government in

encouraging private participation in maritime training, the number of maritime training institutes under the assurance of quality training by the Directorate General of Shipping DG(S) rose to 128 in 2005. India's share of global maritime human resources rose to 26,950 officers and 75,650 ratings, comprising an estimated 6% of the world's seafarers (Ceyhun, 2010).

## 2.8 Research Gap

Several academic studies have been conducted on the maritime labor market in various countries, particularly the Philippines and India. The elements that help the Philippines and India develop themselves as seafaring providing nations are examined in many scholarly studies. Previous studies have almost exclusively focused on specific jurisdictions, but as far as is known, no previous research has investigated Jamaica as a maritime labor market. Furthermore, it was identified that global seafarer supply trends focus on Eastern Europe and Asia but not on the Caribbean States.

After extensive search and review of maritime related literature on Jamaica and the Caribbean at large it became apparent that the region maritime capacity predominantly focusses on logistics business, infrastructure, law and policy and environmental regulation. There is very little research the area of maritime capacity building particularly seafarer's education and training in the region and as such this study aims to fill this gap.

Jamaica's status as a maritime labor market is insufficiently studied and unexplored and as a result several key questions and notions are still not discussed in the existing literatures. This study will explore the maritime labor market in Jamaica to chronicle what exists and what can be done. Only through research can the current state of affairs be determined, and meaningful contributions can be made.

## CHAPTER THREE

### 3. Research methodology

#### 3.1 Introduction

This chapter aims to provide a thorough description of the research design and the research process. An outline and discussion of the method used for collecting and analyzing data will be provided. The justification for adopting a mixed-method approach will be discussed in the first section of this chapter, followed by a detailed description of the research design approach as a method of data collection, method of data analysis, ethical consideration, and the limitations of the study.

One of the most important factors when deciding which research method to use is the nature of the research (Kitada, 2010). This research deals with seafarer supply and the factors that contribute to countries becoming seafarer suppliers. Examining Jamaica's status as a maritime supplier and studying the seafarer supply factors in Jamaica were among the goals of this research. Hence the researcher deemed a multi-step mixed-methods paradigm appropriate.

#### 3.2 Research design and approach

##### The Mixed-method approach

Mixed-method research may be defined as “a class of research where a combination of quantitative and qualitative research techniques, methods, approaches, theories and or language into a single study (Johnson et al. 2007). According to Manuel (2011), “mixed-methods research aids in the complementation of one method with another, even when the methods are drawn from different methodological perspectives. To get more reliable and valid data about both qualitative and quantitative data were used in this research. To acquire a diverse range of perspectives, the researcher sought out maritime professionals and those who have studied and worked in the maritime industry as instructors, seafarers, administrators, and policymakers.

## The Triangulation research design

A triangulation research design was employed to reach the objectives set out to complete this study. The triangulation design enables the collecting of different but complementary data on seafarer labor markets. According to Patton (1999), triangulation uses multiple methods or data sources in research to develop a comprehensive understanding of phenomena.

Triangulation can assist the researcher by providing various datasets to explain various elements of a phenomenon (Noble, & Heale, 2019). This method enriched this research by suggesting other databases that explained the differing aspects surrounding seafarer labor supply. The triangulation design brought together the strength and non-overlapping weaknesses of the different data sources and gave more accurate and convincing findings. The results were compared and contrasted to ensure the validity and reliability of the findings.

### 3.3 Methods of data collection

Firstly, literature research was conducted to determine the supply factors in India and the Philippines and the literature gap. The secondary data source was used to conduct comprehensive desktop research that examined the factors that gave both countries a competitive edge as global seafarer supplier. The dominant themes were identified, from which a comparative analysis of Jamaica's position as a seafarer labor market was examined. Relevant information was collected from different secondary sources.

Secondary data was employed in the study. Electronic and print copies of books and periodicals were obtained from the WMU library. Journals, case studies, online publications, business research studies, textbooks, an e-library, and databases were also used to gather secondary sources for referencing and supporting research topics.

In addition, an empirical study was conducted to look into Jamaica's position as a seafarer labor market. This investigation used a qualitative and quantitative technique, which comprised a semi-structured interview instrument and an electronic questionnaire, to meet the study's aims and fill the gap stated in the preceding chapter.



### 3.3.1 Interview instrument

According to Bernard (2006), The purpose of the qualitative research interview is to describe the significance of important themes in the interviewees' lives. Understanding the significance of what the interviewees say is the most important role in interviewing. Interviews are very effective for learning more about a participant's experiences. Likewise, Burino et al. (2017) claimed that people's practices, perspectives, thoughts, and awareness could be captured in an interview. A semi-structured interview was used. The standardized interview allowed for all of the interviewees to be asked the same open-ended questions; in turn, this allowed for faster interviews that are easier to compare and analyze (Bernard, 2006).

The researcher interviewed key personals in the maritime sector representing both private and public entities to understand the factors that influence the development of the maritime labor market in Jamaica. This data complemented the data collected from the seafarers' using questionnaires. The interview consisted of 12 questions to provide answers to research questions 1,2,3,4, and 5. Each interview lasted approximately last 30 minutes.

Participants of the interview included senior management staff from the Maritime Authority of Jamaica (MAJ), the Caribbean Maritime University, independent maritime experts, and Jamaica's Ministry of Transport and Mining. Interviews were conducted via Zoom teleconference software licensed for WMU.

The following criteria were followed when selecting persons to interview: participants must work in senior management level officials at a maritime administration or a maritime education and training institute (METI). Individuals must be knowledgeable about seafarer education and training in the respective jurisdiction.

### 3.3.2 Questionnaire instrument

A questionnaire was used to obtain data for the study. Questionnaires are used in various settings to acquire information about people's opinions and behaviors (Williams, 2003). The use of questionnaires offers several advantages such as low cost in time and money, yielding a high

volume of information from a lot of people very quickly, allowing respondents to complete the questions when it suits them, analyzing quickly, ensuring respondents anonymity, and preventing potential biases of an interview (Gillham, 2008). Even though questionnaires offer numerous advantages, there are also disadvantages such as: questionnaires frequently provide a snapshot rather than a rich, in-depth picture on issues of concern, some respondents may provide answers that they think are socially desirable, and in addition, the response rate may be low when using a questionnaire. Likewise, Gillham (2008) claims an issue of data quality with questionnaires, and misunderstanding cannot be corrected.

The web-based questionnaire was developed and distributed using Google Forms, connected to the WMU account for maximum security. The questionnaire consists of a total of 19 questions, both open-ended and closed-ended questions. The questionnaires were distributed to the Jamaican seafarers via email to understand their perspective on Jamaica's position as a seafarer supplying nation. A sample of 15 students completing their Master's degree at the World Maritime University was used for a pilot test; questions 5 and 8 were amended.

To achieve the objectives of this study, it was necessary to collect data from Jamaican seafarers' regarding their narratives on Jamaica's position as a maritime labor market to complement the data acquired through the interviews. In selecting participants to answer the questionnaires, the criteria are that the individual must be a Jamaican national and studied at a Jamaica maritime education and training institution (METI). The participant must have maritime experience.

### 3.6 Methods for data analysis and synthesis

Both questionnaires and interviews were used to collect data that complemented each other to get a comprehensive perspective on Jamaica's position as a seafarer labor market. The findings were codified and analyzed to make meaning of the data collected to achieve the aim of the research.

### 3.6.1 Analysis for qualitative and quantitative studies

Several themes were identified upon reviewing Chapter two (literature review) to understand Jamaica's position in relations with the Philippines and India, several themes were identified upon reviewing Chapter two (literature review). Deductive thematic analysis was used to present the findings. The themes were preconceived from the literature review. The coding results resulted in the development of 7 major themes, namely: Communication, Quality of Seafarers/perception, public awareness and perception of seafaring career, Family structure and Influence, Economic conditions ashore, Government involvement/interjection, Motivation Factors. The new qualitative data collected was given the same codes. Additional themes were created from the data gathered from interviews such as challenges and recommendations. Quantitative findings were displayed using descriptive statistics in the form of pie charts and graphs, the findings were situated and presented under the deductive themes. The qualitative findings were presented under fictitious names to safeguard the participants' identities and ensure anonymity.

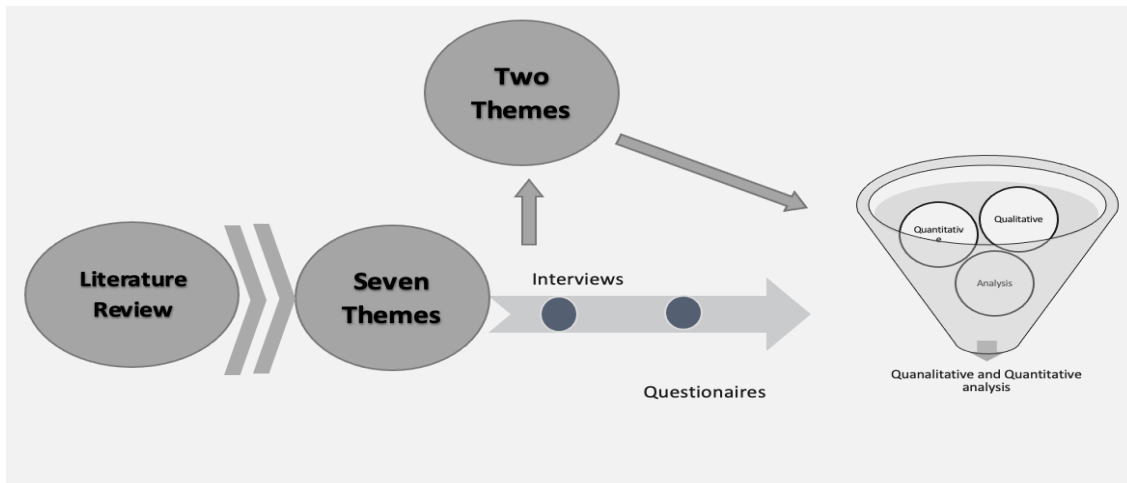


Figure 6: The Mixed-method Research approach.

### 3.7 Ethical considerations

The well-being of the participants was of the highest priority. Hence, before collecting data, the research instruments were approved by the WMU Research Ethical Committee (REC), and a Participant information sheet conveying the research terms was provided to the participants.

Anonymity, voluntarism, and participant confidentiality are all ethical issues on the participants' information sheet provided to the participants. The researchers ensured that the participants were as well-informed as possible about the study's nature and goal and the predicted benefits to the participant/society. The participants were informed about their rights to withdraw from the studies at any time.

When conducting this study, the researchers keep voluntarism in mind as a major ethical consideration. The researcher made certain that the participant's decision to engage in the study was free of coercion or promises of rewards in exchange for their participation. The researcher made certain that the responders understood all that had been said, and he permitted the participants to ask questions.

### 3.8 Summary

The chosen methodologies produced new knowledge and validated Jamaica's maritime labor market conditions against other jurisdiction and existing theories. The mixed-method approach was found appropriate for using qualitative and quantitative questionnaires and interview instruments. Data gathering was done with great care to ensure accuracy. A concerted effort was made throughout data gathering to ensure that the study included a diverse range of stakeholders.

## CHAPTER FOUR

### 4. Findings and Analysis

#### 4.1 Introduction

This chapter presents the results of the study examining Jamaica's position as a maritime labor market. Quantitative findings will be displayed using descriptive statistics in the form of pie charts and graphs, while qualitative findings will be displayed using quotations.

Both qualitative and quantitative data will be analyzed and presented under the following deductive themes, emerged during the literature review and empirical data analysis: 1. Communication, 2. Quality of seafarers/perception, 3. public awareness/perception of seafaring career, 4. family role and influence, 5. economic conditions ashore, 6. government involvement/ Intervention, 7. Motivational factors, 8. Challenges and 9. recommendation.

#### Questionnaire respondents' profile

The qualitative findings will be presented under fictitious names (Table 6) to safeguard the participants' identities and ensure anonymity. Table 1 represent the total of ten participants that took part in the interview. For anonymity confidentiality each participant were characterized with the various fictitious names. In this section all quotations signify verbatim responses and are presented in Italics.

**Table 6:**  
**Interview participant's profile**

| N  | Fictitious Names | Qualifier                     |
|----|------------------|-------------------------------|
| 1  | Captain Malik    | Senior Manager in a METI      |
| 2  | Captain Junior   | Senior Manager in METI        |
| 3  | Donald           | Senior Manager in a METI      |
| 4  | Jane             | Maritime expert               |
| 5  | Maria            | Senior government Official    |
| 6  | Rebecca          | 15 years of experience in MET |
| 7  | John             | Maritime Expert               |
| 8  | Donna            | Senior government Official    |
| 9  | Joan             | Maritime Expert               |
| 10 | Bill             | Government Official           |

Figure 8 represent the total number of Jamaican seafarers that took part in the questionnaires, which was 30. Seafarers between the age range of 26-32 made up the majority of the study, with 40% (n=12). Males accounted for 66.7 %, (n=20) of the total respondents, and females accounted for 23.3, % (n=7) while 10 %(n=3) preferred not to say their gender. The majority of the seafarers who took part in the study 66.7 % (n=20) hailed from low-income households, and it was also observed that the majority (n=12) of the participants came from households with 4-6 people.

### Questionnaire respondents' profile

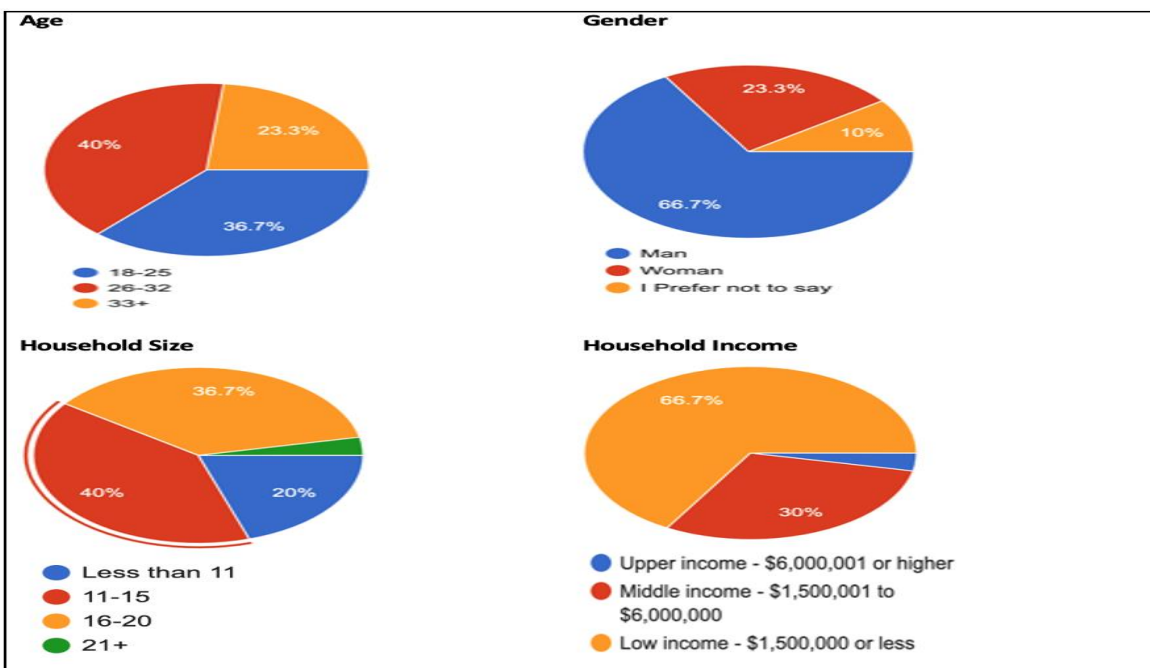


Figure 7: Showing Age, Gender, Household and Household income of Jamaican seafarers.

### 4.2 Communication

Seafarers with language competency in a modern multicultural crewing pattern are more compatible. At sea, language difficulties are a major issue. English language is Jamaica's mother tongue and it is the formal spoken language used in the school system for children of all age. Hence Jamaica has a natural advantage of becoming a seafarer supply country. The data showed that there was a consensus among the participants in the interview that Jamaican seafarer ability

to effectively communicate is a major contributing factor in Jamaica becoming a supplier for the global labor market. It was noted that:

**Jane:** *“Jamaican seafarers English speaking ability allow them to be compatible, integrate and work well with all seafarers from different countries”.*

**Maria:** *“Jamaica is the largest English-speaking country in the Caribbean and English being the accepted shipping language gives a huge advantage to Jamaican seafarers”.*

In addition, seafarers who had gone to sea when asked what are the challenges, they faced on board ship due to their nationality, the ability to communicate ranked low with only 3 of 30 respondent responded that they were facing communication issues. The ability of Jamaican seafarers to communicate may also indicate their abilities to work in a multicultural work place.

From the interviewee’s perspectives, Jamaican seafarers are hospitable and effective communicators which make them work well with other cultures. In support of this point the seafarers were asked if they have any difficulties working in a multicultural environment based on their nationality. The seafarers were given the choice to select multiple options. The majority of the respondents 65.5% (n=19) said they have no trouble working with people from other cultures. Another 24.1% (n=7) claimed that they experience prejudice, 13.8% (n=4) claimed they experience discrimination, 10.3% (n=3) selected harassment, with an additional 10.3% (n=3) highlighting communication issues (See figure 8). These findings imply that seafarers' ability to effectively communicate, as well as their cross-cultural competences, are correlated to the challenges they faced in a multicultural workplace.

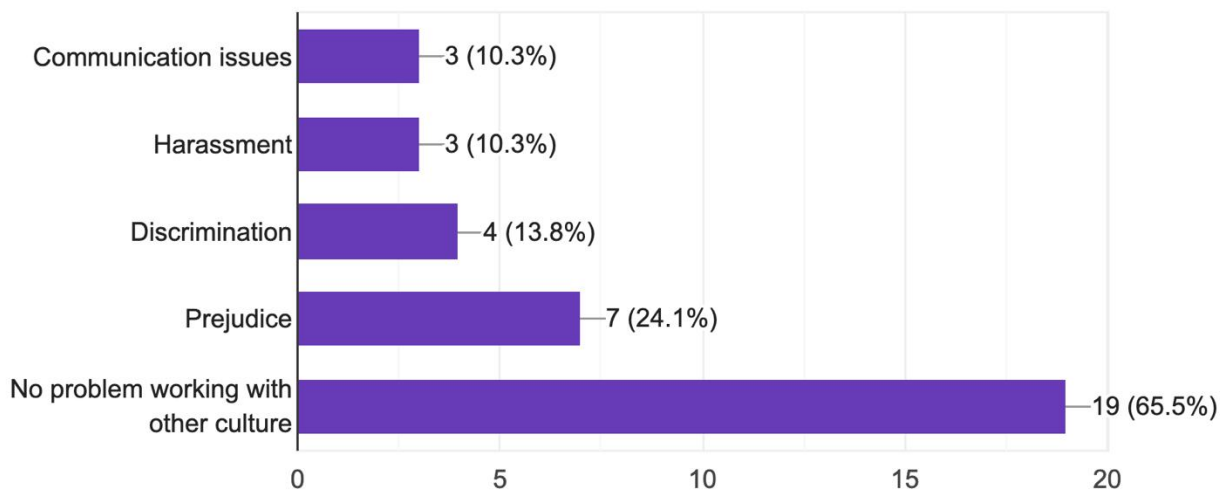


Figure 8: Problems faced by Jamaican seafarers onboard in the multicultural workplace due to nationality.

#### 4.3 Quality of Seafarers/perception

The quality and perception of seafarers plays a critical role in a county's seafaring supply profile. The findings suggested that there is a common belief amongst all the participants that Jamaica produces high-quality seafarers. The participants mentioned that Jamaica offers high training standards, which result in highly skilled and competent seafarers. It was also stated that Jamaican seafarers are hardworking, honest, loyal, and work well in a multicultural workplace. The participants in general in their responses claimed that the Jamaican seafarers are well trained and sought-after. Responses include:

**Captain Junior**, claimed that *“Jamaica is the home of the leading METI in the English-speaking Caribbean region. The Caribbean Maritime University has the most developed human resource regarding maritime education and training.”*

**Maria**: explaining the advantages of Jamaican seafarers, expressed that *“Jamaica seafarers are very hospitable people you can put them on board any ship with multicultural crew and they will get along well with everyone on board.”*



In addition, recent efforts by the university and the maritime administration were well recognized as advancing factors to increase the capacity of Jamaican MET at the international level. Some participants addressed these issues during the interviews:

**Rebecca:** *“At the moment the Caribbean Maritime University signed MOUs with two major shipping lines and they are very happy because of the quality of training that the seafarers they got and the competencies that they display working onboard.”*

**Captain Malik:** *“Jamaica is on the IMO whitelist and it allows for Jamaica certification to be accepted worldwide, and that is something the Maritime administration is proud of. The quality of seafarer education and training that Jamaica offers, have led to an increase in students from neighboring Caribbean Countries applying for MET in Jamaica.*

In addition, a positive link between the quality of Jamaican seafarers and their ability to communicate in English may exist. Hence having well trained seafarers that communicate in English is an asset for Jamaica. Despite the fact that majority of the respondents claimed that Jamaican seafarers are well trained and sought after the Jamaican seafarer numbers remains low.

#### 4.4 Public awareness and perception of seafaring career

Public awareness and public perception play an important role in countries improving their maritime labor supply. According to Martin et al. (2004), the profession of seafaring is highly regarded because of its contribution to society. Filipinos refer to seafarers as "heroes" since they bring money into the country and provide for their families. Emigration (seafaring) is a significant part of Filipino culture. Half of the population has traveled abroad or has a relative who has or is currently doing so. However, this is not the case in Jamaica. The findings suggested that the Jamaican public is not well aware of seafaring career. The participants expressed that generally, public awareness is very low and, Jamaicans lack maritime interest, due to the lack of awareness the importance of the sector is not understood. Participants noted:

**Jane:** “*Regretfully the awareness of the career of seafaring is still poor. The career is mostly known by persons who are a part of the maritime industry not the general public.*”. Other participants stated that “*Jamaicans lack maritime conscience, people are not aware of the career of seafaring and overall people lack awareness of the ocean and its endless benefits.*”

The participants in the interview believed that public awareness about the seafaring career was low. When asked the seafarers how they learned about a seafaring career, most respondents 50%, (n=15) said they learned about it through word of mouth. 33.3%, (n=10) of participants learn about the career through a school career fair, and an additional 16.7 %, (n=5) learn about the occupation through family and friends (see figure 9). None of the respondents learn about the occupation through television ads or other mediums. This could indicate that seafaring as a career is not a national interest and is pushed more through informal means such as word of mouth rather than a specific national interest advertised to the public.

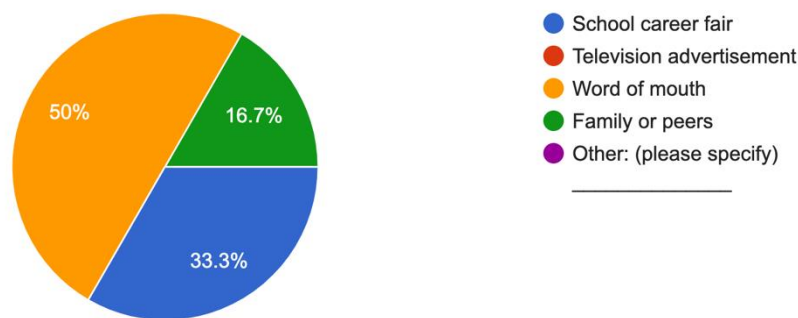


Figure 9: Depicting how seafarers learn about the seafaring profession.

To further explore the awareness and perception of the seafaring career the seafarers were asked how is the profession of seafaring viewed by the Jamaican public. A total of 46.7%, (n=14) of the respondent expressed that the profession is not very important, 43.3%, (n=13) claimed that the profession was somewhat important, an additional 10%, (n=15) claimed that

they did not know. None of the respondents believed that Jamaican society considers the profession of seafaring to be very important.

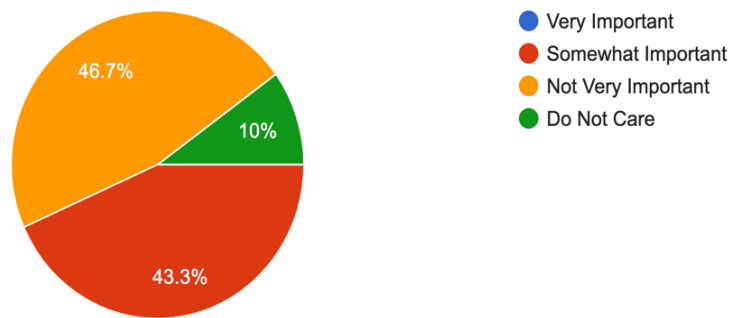


Figure 10: Depicting respondents' view on the perception of the seafaring career.

#### 4.5 Role of family

In jurisdictions such as the Philippines and India, the family structure and background are very influential in selecting the career of seafaring. According to GPCCI (2016) Filipino seafarers are often encouraged by their parents to pursue seafaring as a career. Zhao & Amanté, (2005) claimed that Filipino seafarers often originate from large families, most married with children. Likewise, in India, the family unit and relatives play a very important role in influencing the preference for seafaring as a career among Indian seafarers (Sasirekha & Ramani 2014). While we can see where family plays a very influential role in the Philippines and India, the findings suggested that this is not the case in Jamaica's context. The majority of Jamaican seafarers that participated in the study came from relatively small households with 4-6 occupants.

The respondents were asked if they had any relatives that were seafarers, and a total of 76.7%, (n=23) did not have any relatives that were seafarers, with an additional 23.3%, (n=7) had family members that were seafarers. In one of the interview **Joan** Claimed that “*Jamaicans lack awareness about the career and the persons that select the occupations are the persons that have families are part of the maritime industry*” (see figure 11). This maybe be an indication that there is a relationship between industry exposure and people influencing their families.

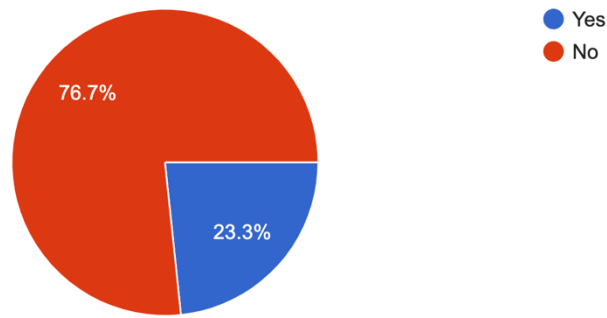


Figure 11: Depicting respondents who have seafaring relative.

In addition, the respondents were asked how did they rate the role of the family influence in selecting seafaring as a career. The respondents disclosed that the family does not have a major influence in encouraging them to select seafaring as a career in Jamaica. A total of 40%, (n=12) claimed that family is not very influential, with an additional 30%, (n=9) saying that family does not influence at all. An additional 16%, (n=5) stated that family is somewhat influential, 13.3%, (n=4) claimed that their family was very influential in selecting seafaring as a career (See figure 12). However, the reason for this was not identified: if it was a case that the family was not aware of the profession or they do not like the career. This may indicate that there is a strong correlation between awareness and the role of their families.

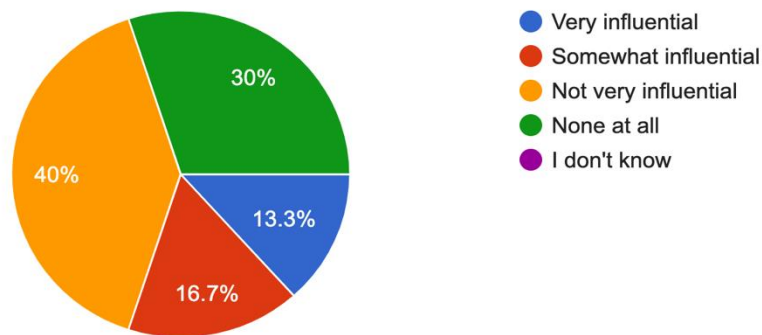


Figure 12: Depicting the role of family influence on selecting seafaring as a career.

#### 4.6 Economic conditions ashore

The majority of respondents 80%, (n= 8) interviewed agreed that the economic situation in Jamaica is relatively poor. As a result, individuals prefer to pursue a profession at sea since it is more lucrative. Even though seafaring as a career has drawbacks, such as time away from family, poor working conditions, and other maritime dangers, the respondent indicated that it is more financially rewarding than jobs ashore.

**Donald:** *“At the METI the administration and the instructors are constantly in wage negotiation. The instructors often time financial constraints while working at land and whenever they work at sea, they always make more money hence it is hard to keep them. Sometimes they will even leave in the middle of the semester when the opportunity presents itself for them to go to sea.*

**Captain Junior:** *“If you should compare a seafarer and his counterpart in land-based professions that graduate the same time, in ten years the seafarer can repay his/her student loan, buy a house, and even start a business while in most instances it is highly unlikely for his/her counterpart ashore.*

#### 4.7 Government involvement and Intervention

McKay (2007) claimed that the Philippine government actively develops a seafarer labor supply as a national development strategy. Likewise, the role of the Indian government has also been notable in the promotion of seafaring as a career and the development of India as a labor supplying country (UNESCAP. n.d.). The findings suggested that the Jamaican government had played a very inactive role in promoting seafaring as a career. Overall, the majority of the respondents express that the government of Jamaica has played an inactive role in the promotion and support of seafaring as a career. It was expressed that there is no national maritime interest from the government. The following are responses gathered:

**Maria:** *“Government has not played an active role. Government officials are not maritime conscious, and it is obvious in how they deal with maritime-related issues. Officials put the maritime issue on the backburner of the government agenda and do not approach them with no sense of urgency. The Government is inactive, Politicians are not aware of the profession, and its benefits”*

**Donald:** *“The government must establish a policy to regulate seafarer work to create revenue for the country. Because seafarers pay taxes to Jamaica, the country does not profit from direct taxation because there is no structure. There need to be a regulating of seafarer so that the Jamaica society can benefit from this form of employment, this regulation will allow for the proper documentation of the number of registered seafarers, the vessels that they work for so that we can give numerical figures of how we are supplying labor to the global market. We currently don’t have that. This system can only be driven by strong government policy”*

The lack of government interventions seems to create a negative impact on MET in terms of the cost born by individual students. Captain Malik elaborated this issue by saying that:

**Captain Malik:** *“The cost of becoming a seafarer is one of the most significant obstacles that Jamaicans confront. Due to the high costs of Maritime education and training, students often choose another professional route. It's also not uncommon to see a high number of students drop out of school due to their inability to pay for the duration of their studies. It would go a far way if the government steps in and help in any way possible to make maritime education more affordable for Jamaicans”*

Additionally, the seafarers were asked if they get any funding from the government or any private entity to fund their Maritime education and 100%, (n=30) of the respondent claimed that they did not receive any support.

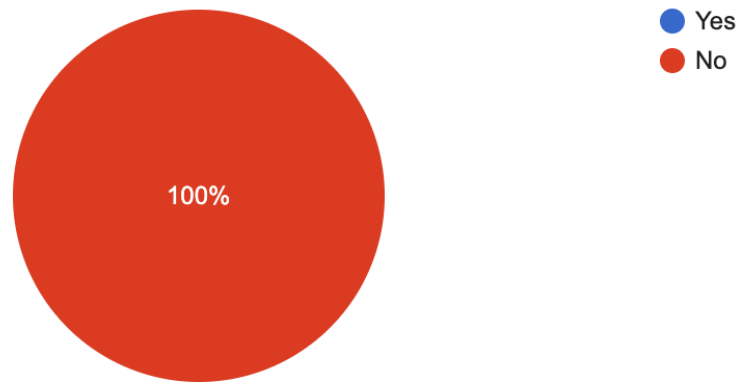


Figure 13: Respondents that received funding from government or private entity to finance their MET

In support of the argument that the government is inactive 96.7%, (n=29) of the seafarers did not believe the government promotes the profession of seafaring. This could indicate that the government is doing virtually little to promote seafaring in Jamaica. A further 3.3%, (n=1) said they had no idea, while none of the respondents said they believe the government is doing enough to promote seafaring as a career option (See figure 13).

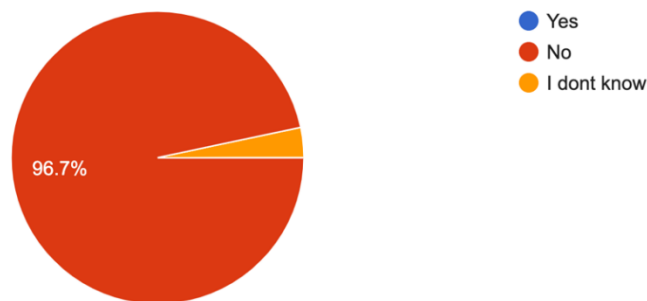


Figure 14: Depicting respondent views on government effort to promote the seafaring career.

#### 4.8 Motivational Factors

The findings suggested that seafarers across all three jurisdictions are motivated by money. According to Barnett et al. (2006), Filipinos have a Genuine interest in the sea, and the opportunity to travel motivates Filipinos. On the other hand, Manalo et al. (2015) believe Filipinos are motivated by money. In the Indian context, Sasirekha & Ramani (2014) claimed

that Indians are interested in adopting the career of seafaring because of the good salary and government tax break.

In support of the existing literature, it is quite the same in the Jamaican context. The respondents were asked why they chose to become seafarers and they were allowed to select multiple options. Out of all the respondents, 70 %, (n=21) claimed that money was the major factor why they selected seafaring as a career, followed by 36.7 %, (n=11) who selected to be seafarers to see the world. 26.7 %, (n=8) state that they select career in seafaring because of better career prospect a sea. 3.3 %, (n=1) claimed they reside close to the sea, and an additional 3.3% (n=1) selected other reasons. This validates the points made in the literature review as it can be seen where money is the major motivational factor for people to select the career of seafaring.

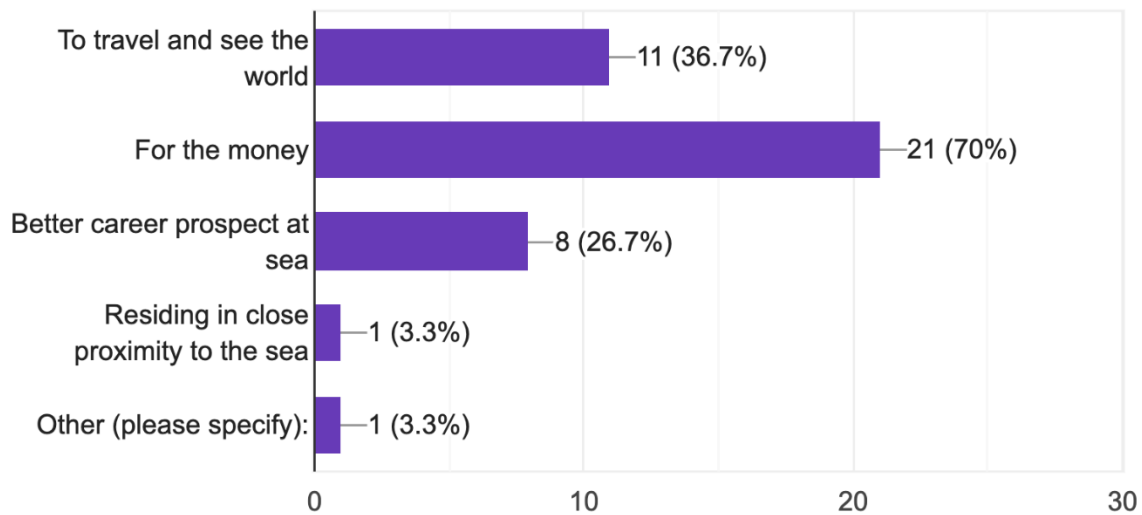


Figure 15: Reasons why participants choose the career of seafaring.

#### 4.9 Challenges

When asked some of the challenges experienced in the Jamaica maritime education and trainings sector, most respondents agree that lack of collaboration and partnership between the major stakeholders, lack of national fleet, the affordability of MET, lack of awareness about the profession were all major drawback in the Jamaica METI system. The following quotes were articulated by respondent:



**Captain Malik:** *“There is a lack of cooperation among stakeholders such as the METI, shipowners, and the government. The government is very inactive in supporting seafarer’s education, providing financial assistance, or providing equipment while, on the other hand, the shipowners do not help to finance the schools; the shipowners will just come and snatch up the seafarers once they are finished with their training.”*

**Captain Junior:** *“Jamaica lacks a national maritime fleet, and as a result relies on international shipowners to employ Jamaican seafarers with little to no assurance. This challenge sometimes makes it extremely difficult to find employment for some seafarers also, we lack berth/training vessel and have to rely on international shipowners for students to do sea time training.”*

Consequently, the data also suggested that the Jamaican seafarer trafficking drugs is a disadvantage that the country will have to assess, which is a noted challenge of achieving the goal of becoming a seafarer supplier. The participant noted that:

**John:** *“There was a time in Jamaica history that the trafficking of drugs was very common among the seafarers and as a result, Jamaica earns a reputation of seafarers trafficking drug.”*

The issue of drug trafficking appeared to be a serious concern Captain Junior, Donald, and Rebecca also emphasized this issue.

#### 4.10 Recommendations

To improve the Jamaica seafaring supply factors, several recommendations were provided by the respondents. The major focal points were government involvement raising awareness, a strategic partnership among METIS and the major stakeholders, and resource support.

In order to significantly increase Jamaica seafarer, supply it was emphasized that awareness must be raised. It is through people knowing about the profession people start selecting to go to sea. **Bill:** *“Holistic sensitization of population to raise awareness of the career*

*of seafaring. Use television ads, schools career fairs, radio broadcasting, posters and other marketing tools. While awareness is being made to convince the public to go to sea the government need to play an active role in making METI more affordable. According to **Captain Malik:** “Make met education more affordable so more Jamaican young people can get the opportunity to become seafarers This can make possible through more collaboration between key stakeholders.” **Rebecca** on the other hand was more concern about seafarer’s employment when they finish their studies. To secure employment for Jamaican seafarers, she claimed that the Jamaican government should: “Revised and improve the shipping act to make ship owner obligated to hire at least one Jamaican seafarer when register in the national registry”. Based on the findings it became apparent that the government have a critical role to play if Jamaica was to ever become a major supplier of seafarers.*

#### 4.11 Summary

This chapter presented both qualitative and quantitative finding that was obtained through interviews and questionnaire. Senior-level officials from the Jamaica Maritime industry were interviewed to get their accounts of Jamaica’s position as a maritime country. The questionnaires were used to gather data from the seafarers to gather their perspective on Jamaica’s position.

The qualitative findings and the quantitative findings were situated in several themes, namely: Communication, Quality of seafarers/perception, public awareness and perception of seafaring career, family structure and Influence, economic conditions, government involvement/interjection, seafarer motivation Factors, challenges, and recommendations.

Qualitative and quantitative findings will be further discussed in the next chapter.

## CHAPTER FIVE

### 5. Discussion of Findings

#### 5.1 Introduction

The presentation of findings and analysis data were outlined in the previous Chapter. This chapter will focus on answering the research questions. The Jamaican seafaring supply elements to those of India and the Philippines will be examined. The data that has been reported will be reviewed to determine whether it supports and connects to ideas.

#### **Research Question 1**

*What is Jamaica Current position as a global supplier of seafarer in the maritime Industry?*

#### Jamaica's Edge

In interrogating Jamaica's current position, relative to research question one, the findings reveal several factors that exist within the country that might be advantageous and disadvantageous to the country's possibilities of upscaling its seafaring supply. One of the notable factors is the Jamaican seafarers' ability to speak in English. Language problems have long hampered safety at sea. When there is no common language among officers, crew, or passengers, accidents caused by misunderstandings or miscommunications can turn into disasters. For foreign crews to work together onboard vessels, it is critical that they speak the same language. Furthermore, when a vessel travels through foreign countries, the master and pilot must communicate in a similar language to ensure the vessel's safe berthing. According to the findings, Jamaica is an English-speaking society, and the ability of Jamaican seafarers to communicate in English offers them an advantage in the international seafarer labor market. Jamaican seafarers' ability to speak in English coupled with their hospitable nature have increased the seafarer's cross-cultural compatibility to work in a multicultural workplace. Seafarers with cultural competency in a modern multicultural crewing pattern are more competitive (WU, 2004). Misunderstandings are easy to happen in this multicultural context, posing a severe risk to the safe and secure operation, especially in an emergency. The findings suggested that Jamaican

seafarers have good cross-cultural management skills and are compatible to work with other seafarers in a multicultural workplace.

The ability of seafarer to communicate in English and work well in multicultural workplace is not sufficient for the safe and secure operation of ships. Fundamentally the quality of the maritime education and training and the competencies of seafarer are the real underpinning factor for the safe and secure operation of vessels. The quality of seafarer education and training directly influences the seafarer's professional qualities: well-educated and trained seafarers can better adapt to various work settings and lower the possibility of human error. The findings claimed that Jamaican seafarers are highly trained, rated, and sought after by the shipping companies. It is believed that Jamaican seafarers are honest, hard-working, and loyal. These characteristics are important for the safety, security, and viability of the shipping industry.

To attest to the quality of Jamaican seafarers Jamaica's adoption and compliance with the STCW have landed Jamaica a spot on the IMO "so-called whitelist"<sup>5</sup>. The presence of Jamaica on the White List indicates that certificates issued by the nations on the list are in line with the STCW convention .... hence, the countries on the list have met the stated minimum standards for training and certification of seafarers. Jamaica has demonstrated its ability to effectively implement international instruments and provide training according to the STCW convention to maintain a worldwide standard of competent seafarers.

In addition, underpinning the quality of Jamaican seafarer success perception is the quality of education received at the Caribbean Maritime University. The Caribbean Maritime University is said to be one of the oldest METI in the English-speaking Caribbean and is leading the way in terms of human resources and facilities. The Caribbean Maritime university was established and funded by the Norwegian government in 1980 under Norway's commitment to the sustenance of the marine environment and the promotion of high quality of maritime education. Between 1979 and 1980, the Norwegian government supported the establishment of maritime training centers (MTCs) in Cape Verde, Nairobi, Tanzania, Sierra Leone, and Jamaica.

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<sup>5</sup> The IMO whitelist is not an official name use in any of IMO documents. The term was informally coined to represent a published list of countries assessed by the IMO as properly implementing the STCW convention.

The MTC, which was established in Jamaica and evolved into the Caribbean Maritime University providing national higher education is the only one of the five (5) that has survived.

The Findings suggested that Jamaican seafarers have several positive characteristics that shipowners are looking for, which is supported by strong maritime education and training legal framework. However, the question now become why is Jamaican seafarer numbers so low? Why more Jamaicans are not becoming seafarer?

why is Jamaican seafarers' output numbers so low?

In an attempt to answer the question as to why Jamaica's seafaring output numbers are so low? the findings suggested that despite the fact that the country has a good MET legal framework that train quality seafarers the awareness of seafaring careers is very low among the Jamaican public. Jamaican people are not maritime conscious. It is believed that Jamaicans are not aware of the career of seafaring and the potential of the maritime space overall. It is fair to say if people are not aware of opportunities, they won't be able to maximize on them and it this appears to be the case in Jamaica. One could say the shipping industry is what makes the world go around and the world as we know it would not be the same, at the core of this notion are the seafarers who plays a critical role in the sustainability of the industry. The findings suggested that the public perceived the career of seafaring as not very important. If the Jamaican public are not aware of the importance of seafarers one can assume that person will not select the profession for their career.

Since the findings suggested that people are not aware of the career of seafaring, it became critical to understand how did the existing seafarers learn about the career of seafaring. The findings suggested that majority of the respondents learned about the career through word of mouth. Based on the findings if we should assume that word of mouth is the primary medium of how awareness of the seafaring career is raised then we may conclude that this is not optimal if the country is to significantly upscale its seafaring numbers. In addition, 90% of the seafarers that participated in the study claimed that the occupation is not promoted as a lucrative career, working on the premises of this findings we can say many Jamaicans are not aware of the benefits of the profession. The career of seafaring, even though it is so financially lucrative and rewarding, has not been optimally explored by Jamaicans due to lack of awareness.

To further interrogate the question as to “why is Jamaican seafarer numbers are so low?”, it is critical that we take a look at the role that the government play. The literature has taught us that the role of government in the development of a seafarer labor market is very important. Seafaring is a lucrative profession; countries that have achieved developed status today have recognized seafarers as a national interest development tool and the early recognition has paid off handsomely. As a result, to realize its full potential, the seafarer profession must be integrated into national priorities.

The data gathered from both the interview and the questionnaires suggest that the Jamaican government takes an inactive role in the promotion of the seafaring career. One participant in the study expressed that the government and its officials are not aware of the industry and its potential benefits, which presents a big challenge in developing the sector. The findings led me to believe that developing Jamaica’s seafaring capacity is not a government priority. The literature showed that in India and the Philippines developing seafarer labor market are national priorities which can be seen through the actions of their governments but the situation in Jamaica is different.

The career of seafaring is very rewarding on the individual level and also on the national level and it can be a great tool use by Jamaica to build its economy. However, the findings suggest that government officials lack the political will to invest in maritime education and training. In literatures exploring Jamaica maritime capacity, it became apparent that the Jamaican government is more interested in investing in ports, roads, bridges and other infrastructures that can be seen immediately but are reluctant to invest in maritime education. While the physical infrastructure investments can be seen right away investment in maritime education and training can take up to 5 years before the benefits can be seen while the Jamaica political cycle is 4 years. Hence to impress the public and get re-elected into power politicians will often opt to do the short-term investments. This notion is an attempt to making meaning of why the government have been reluctant to support the sector given how rewarding the sector is.

If Jamaica should increase its seafaring supply, it is critical that the government plays an active role in the process and make it a national interest. The government support may aid in

promoting the seafaring profession, developing favorable policies, providing the resources that the sector requires and making MET affordable for more Jamaicans.

## **Research Question 2**

*What comparison can be made about the socio-economic factors exist in the Philippines, India and Jamaica that contribute to the development of the seafarer labor market?*

Several comparisons can be made about the seafaring factors that exist between Philippines, India and Jamaica but for this discussion we will focus on the family structure and Influence, Economic conditions and the motivational factors.

The findings suggested that Jamaican seafarers are generally from low-income household, with 4-6 occupants, Most Jamaican seafarer does not have relative that are seafarers and majority of participants claimed that the role of the family is not influential when making their decision to select the career of seafaring.

Aside from the fact that most Jamaican seafarers originate from low-income homes, the structure, role, and size of Jamaican family units differ from those in the Philippines and India due to country demographic differences. It may be assumed base on the findings that the Jamaican seafarer family unit in general lack awareness of the profession. To support this claim the findings suggested that most the Jamaican public lacks awareness couple with the fact that 76.7 % of Jamaicans' seafarers did not have any relative that are seafarers. The lack of awareness may be the most predominant reason why the Jamaicans have non or very few relatives that are seafarers and family have low influence in relatives selecting the career of seafaring.

In the Philippines however, the findings suggested that seafarers are generally from large, and low-income families. The family plays an important role in influencing Filipinos to become seafarer and it was discovered that the most Filipinos have relatives that are seafarers. Filipinos' nationals refer to seafarers as heroes and heroines hence the awareness level of the profession is high and as such it can be seen where seafaring is a tradition and people encourage their children and relatives to become seafarer from very young age. India's situation is very similar to that of the Philippines, where the majority of seafarers come from large low-income families who influence their decision to become seafarers.

The findings suggest that the seafarers in all three jurisdictions came from low-income families and that money was the major motivating factor for them to select the occupation of

seafaring. This is an indication that there is a correlation between low-income household and people choosing to become seafarers. The findings validate the theories put forward in the literature review. Wu & Sampson (2005), and Ma (2021), claimed that the supply of seafarers is inversely related to shore-based economic development. To put it another way, people in low-income countries and by extension low-income families are more likely than those in high-income countries and high-income families to engage in seafaring as a profession.

A huge portion of Filipino seafarers came from the rural province and had a background of high poverty (Zhao & Amante, 2005). Filipinos select to go to sea because Seafaring as a career offers attractive remuneration compared to onshore jobs, even though it means being away from their home and their families. Later with a job onboard, they try to raise their family living standard through remittance. Likewise, the conditions in India are similar to those in the Philippines. Indian seafarers often originate from a poor background and find working at sea more attractive than ashore options. The findings on Jamaica reveals that Jamaica have a low GDP per capita, and the respondents rate Jamaica's economy as low. As a result, people find it more attractive to seek employment at sea rather than ashore. 66.7 % of all the seafarers that took part in the study claimed that they were from low-income families making less than JMD1,500,000.00 per annum which is the equivalent to USD 9701.81—taking into account Wu & Sampson (2005) and Ma (2021) concept. This may be an opportunity for Jamaica to use the country's economic condition to encourage people to consider a career at sea by presenting the alternative lucrative career option.



### Research Question 3

*What are the merits and demerits of Jamaica becoming a seafarer supplying nation based on lessons from Question 1 and Question 2?*

Based on the information that the findings establish the island of Jamaica possesses several merits and demerits that may influence instrumentally increasing its seafaring supply.

These are:

#### Merits

- Jamaica is an English-speaking society that enables Jamaican seafarers to communicate effectively onboard.
- Jamaica offers high-quality Maritime education and training to seafarers, and as a result, the Jamaican seafarers have made their name as honest, loyal, disciplined and hardworking seafarers.
- Jamaican Seafarers have good cross-cultural management skills and work well in a multicultural workspace.
- Jamaica has been committed to the adoption and effective implementation of the STCW convention, as a result, Jamaica has been added to the IMO so-called “whitelist,” allowing Jamaica’s training and certification to be recognized globally.
- Jamaica has the relatively highest maritime education and training human resources in the Caribbean region.

#### Demerits

- Jamaicans lack awareness of the occupation; hence it will require extensive sensitization campaign to encourage people to consider the career option.
- The lack of government interest and support of the sector act as a demerit.

## Research Question 4

*What are challenges and opportunities exist for Jamaica should the country decide to work towards improving its seafarer supply?*

In addition to the Merits and Demerits that may influence Jamaica improving its seafaring supply the findings indicated several challenge and opportunities that exist for Jamaica should the country decide to improve its seafarer supply.

- Opportunities

According to the BIMCO and ICS 2021 maritime labor report, there is a shortage of seafarers. It is anticipated to worsen in the future, which is an opportunity for Jamaicans to strengthen the METI system and educate and supply more seafarers to the maritime industry. In exchange, positioning Jamaica as a seafarer labor market will drive down unemployment in the country and, by extension, contributes to economic development and nation-building.

Additionally, Jamaica is a prominent Caribbean state that has constantly championed the region's maritime interests. Jamaica has one of the region's oldest and most established METIs, with a diverse set of maritime human resources. Jamaica has made its name regarding the quality of training of seafarers. Hence the country can strengthen its Current MET system and expand its influence in the Caribbean in becoming a regional provider for maritime education and training of seafarers.

- Challenges

The Jamaican government currently has no known policy governing the production and labor of seafarers, which makes regulating seafarer labor, collecting revenues, and tracking and recording Jamaican seafarers difficult. Such a framework will help produce quantitative findings to demonstrate seafarers' contribution to Jamaica and better advertise the profession.

Inadequate collaboration and coordination among key stakeholders in the METI sector contribute considerably to the difficulties Jamaica experiences in boosting its seafarer supply. The key stakeholders include METI, Government, Shipowners, and cadets. The findings suggest

that Jamaica lacks training ships, and as a result, most practical training has to be conducted using simulators. There is also the scarcity of ships for students to perform their onboard training on, making it difficult for the METI to find international shipowners willing to have the cadets do their onboard training to become qualified officers.

The affordability of attending METI also poses a huge challenge for Jamaica to instrumentally increase its seafaring supply. Generally maritime education and training comes at a considerable cost across the world; however, government support has played a huge part in making METI more affordable in many jurisdictions with a national maritime interest. The findings established that most of the seafarer participants in this study hailed from lower-income households, and 100% of them did not receive any financial assistance from the government or any private entities to help pay their tuition. The high cost of tuition impacts the number of people who select the career option, asserting this claim on the economic concept of supply and demand, as price increase the quantity demand of the services decrease and as price decrease the quantity demand of the services increase.

Another major challenge that the findings revealed was the perception that Jamaican seafarers have a propensity for drug trafficking. The maritime business is affected by drug trafficking, which is a big issue. Drug trafficking is more prevalent in some regions than others, with the Caribbean being one of the hotspots. When drugs are discovered onboard ships, the shipowner stands to lose a considerable amount of money owing to ship delays and other legal repercussions; as a result, shipowners may be cautious to engage Jamaican seafarers for fear of the potential damages. The shipping sector has a zero-tolerance stance for narcotics; thus, Jamaica must confront this issue.

### **Research Question 5**

*How best can these challenges be overcome?*

Recommendation for Improvement of Jamaica seafaring supply

To improve the Jamaica seafaring supply factors, several recommendations can be provided. The research shows that government support and strong stakeholder involvement play

a critical role in creating a seafarer labor market. As seen in the literature on India and the Philippines, the government has huge stakes in the sector. The production of seafarers in the Philippines and India is highly driven by the private sector, induced by favorable government policies and support. Adopting the Philippines and India's strategy Jamaican government may consider encouraging private players to come into the sector to set up METI and training facilities to increase Jamaica's seafaring supply.

The findings suggested that the affordability of METI was a major concern, and it can be recommended that to make MET more affordable, strong collaboration between the government, ship owners, and METI is required. The collaboration should aim to provide more scholarships, grants, sponsorships, tuition schemes, etc.,. In addition to increasing the intake, it is critical the students enroll are able to complete their studies and are able to obtain a certificate of competency from the Jamaica Maritime Administration. The findings suggested that several students finish the METI but fail to pass the competency exam at the maritime administration. Hence it is recommended that the METI forge a better relationship with MAJ to ensure that curriculum and examinations are constructively aligned to avoid high spoilage and ensure that cadets are competent and can receive their Certificate of Competency (COC).

This study suggested that the lack of awareness is a major issue that hampers Jamaica's ability to instrumentally increase its seafarer supply. People are just not aware of the profession. It is recommended that the major stakeholders, government, and METI launches nationwide sensitization programs to educate the populous about the profession.

Furthermore, the lack of a national fleet in Jamaica makes it difficult for Jamaican seafarers to obtain work; currently Jamaica relies on foreign shipowners to hire Jamaican's seafarers with no assurance of employment. However, because Jamaica has an open registry, it is recommended that the country's Shipping Act be revised and improved to include a term of employment for Jamaican seafarers when foreign shipowners register their vessels under the national flag.

## CHAPTER SIX

### 6. Conclusions, Limitations & Recommendation for future studies

#### 6.1 Conclusion

Unlike most other occupations, seafaring forces people to leave their homes and spend long periods working and socializing in a small environment on board ships that are mostly cut off from the rest of the world. Like other dangerous industries like mining, Seafaring is recognized as one of the most dangerous (Barnett et al. 2006). The profession requires individuals to make a great commitment by being away from their loved ones for lengthy periods while working in dangerous conditions. As shore base conditions improve, many individuals are losing interest in the profession. The shipping industry is a derived demand; as trade increases, so does the demand for shipping service and, by extension, the demand for seafarers. However, the research has shown that as the condition ashore improves, the supply of seafarers decreases, and this is the case in most traditional maritime nations. Due to this phenomenon, there has been a rise in seafarer labor cost that forces shipowners to employ seafarers from developing non-traditional maritime countries.

This study, through its findings as adequately highlighted and provided new literature on Jamaica's position as a seafarer labor supplying country. In light of the anticipated shortage of seafarers, it is only logical that countries examine their seafarer supplying potentials and prepare to fill the anticipated demand.

This study revealed that Jamaican seafarers originate from low-income households of relatively small family sizes of 4-6 persons. The economic condition is poor as the GDP per capita is approximately 4,664.529 (World Bank 2021), and money is the major motivating factor why Jamaicans enter the maritime profession.

Jamaican seafarers are highly trained and sought after by international shipowners due to several notable advantages, such as Jamaican seafarers' ability to speak English and their cross-cultural management skills, making them compatible with a multicultural crew. Contributing to the high qualities of Jamaican seafarers is Jamaica's effective implementation of the STCW as amended convention that landed the country on the IMO so-called "Whitelist." Jamaica gained a competitive edge by having one of the oldest and most advanced METI in the English-speaking

Caribbean region, the Caribbean Maritime University, and the most highly trained maritime human resources.

While Jamaica has several advantages, there are several demerits and challenges that the country needs to overcome if the country opts to instrumentally increase its seafarer supply. The challenges include the public's lack of awareness about the seafaring profession, lack of government support, lack of collaboration among key stakeholders, and the perception of the tendency for Jamaican seafarers to traffic drugs.

To overcome the challenges, it is recommended that the Jamaican government play a more active role in promoting the seafaring profession and making this a national interest. The government making this a national interest should aim to promote seafaring career, support METIs with the necessary types of equipment's, and make MET more affordable for more Jamaicans to access. Forming strong collaboration and corporation among key stakeholders is also critical. Collaboration between METI will help to provide on-the-job training for cadets and secure employment after program completion.

## 6.2 Limitations

When conducting this research, several challenges might have impacted the execution of this research. This study took place during the COVID-19 pandemic, which has caused countries to close their borders and restrict travel. As a result, the researcher was unable to visit the countries under investigation. Instead, the researcher uses an electronic format for interviews and questionnaires, which prevents the researcher from obtaining nonverbal communications from participants in this study. In addition, the researcher was constrained by a lack of time - given the short time allotted to perform this study. The research was conducted over an eight-month period which present the limitation of time shortage. For this researcher a mixed-method research design was employed, which necessitated a significant amount of time to gather, present and analyze qualitative and quantitative data within the limited time frame given.

### 6.3 Recommendation for future studies

Following the review of existing literature and the analysis of the empirical data this study has opened new avenue for further research. The current study focuses on Jamaica's position as a maritime labor market. The BIMCO & ICS 2021 Maritime labor report along with the Drewry 2021 report claimed that there is a shortage of seafarer supply and the problem is expected to worsen. However, the existing academic literature on seafarer supply predominantly tend to focus on Eastern Europe, Asia and more recently Africa. However, there is very little research on Caribbean seafarers and the Caribbean potential of becoming the next source of seafarers manning international ships. On the basis of the foregoing, I would urge more research into the possibility of the Caribbean region being a new supply of international seafarers.

The topic of seafarer supply is a broad one, and due to its scope and practical limitations, thorough statistical studies were not done during this study. As a result, it is recommended to conduct more rigorous statistical approaches in future studies on Jamaican seafarers along with working with greater time spans and sample sizes, to establish more clearly correlations between essential variables. The economic and social contributions of Jamaican seafarers to the Jamaican society should be investigated further. Furthermore, additional research could also be done to examine the experiences of Jamaican women seafarers coming from a seafarer minority country and work in a male-dominated industry.

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# Appendix 1

## *Interview Consent form*

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|  
Dear Participant,

Thank you for agreeing to participate in this interview which is carried out in connection with a Dissertation that will be written by the researcher, in partial fulfilment of the requirements for the degree of Master of Science in Maritime at the World Maritime University in Malmo, Sweden.

The topic of the Dissertation is "Upscaling of Jamaica Seafaring Supply using the Philippines and India as models."

The information provided by you in this interview will be used for research purposes. The results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your data will be immediately deleted.

Anonymized research data will be stored on a hard drive with a strict password, stored in a locked cabinet with a key. All the data will be deleted as soon as the degree is awarded.

Your participation in the interview is highly appreciated.

|                |                                 |
|----------------|---------------------------------|
| Student's name | DERON DANARIO WILSON            |
| Specialization | MARITIME EDUCATION AND TRAINING |
| Email address  | W1904908@WMU.SE                 |

\* \* \*

I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrolment.

Name: .....

Signature: .....

Date: .....

## Appendix 2

# Interview Questions for Key personnel in Maritime Education and Training Sector

### Section A; Demographic Information

1. Organization:
2. Position:

### Section B; Motivational Factors

3. What do you think about the development of a seafarer labor market and its potential benefits to Jamaica?
4. What are your thoughts on the public's awareness of seafaring as a career in Jamaica?
5. In your opinion, do you find it more rewarding to seek opportunities at sea as a seafarer rather than ashore?
6. How vital is Jamaica's geographical location in promoting seafaring as a career?

### Section C; Jamaica's Advantages and Disadvantages

7. What are the advantages of the country that contributes to the development of a seafarer labor market?
  8. How do you feel about the role that the government plays in promoting seafaring as a career? Or they active, inactive, or moderate?
9. In your opinion, is the Jamaican education system sufficient for people to become seafarers?
10. What are the disadvantageous factors in Jamaica's current Maritime system that hampers the potential of becoming a seafaring supplier?

### Section D; Improving Jamaica's Seafarer Supply

11. Do you think Jamaica's Population will impact the country's ability to, increasing its seafaring supply?
12. In your opinion, what are the requirements for Jamaica to improve its seafarer supply?



# Appendix 3

8/23/2021

Jamaica Seafarer Supply

## Jamaica Seafarer Supply

Dear Participants

My name is Deron Wilson, and I am researching the upscaling of Jamaica's seafaring supply using the Philippines and India as models. This study is being conducted through the World Maritime University. The purpose of this questionnaire is to examine Jamaica's position as a seafaring supply country from a seafarer perspective. The questions will ask about your personal belief as to reasons for selecting seafaring as a career, and the role the government and society has played in your decision.

The questionnaires contain nineteen 19 questions and will be divided into three sections. Section A aims to collect data regarding your demographic information; section B will collect data about the motivating factors that led you to the career of seafaring. Finally, section C will be about Jamaica status as a seafaring nation. It will take around 20 minutes to complete this questionnaire.

Read and answer the questions based on your personal belief. If you decide to participate in this research, your response will be anonymous. Participation in the study is entirely voluntary, and you have the option of discontinuing at any time. All of the answers you provide in this questionnaire will be kept in confidence.

Your consent to undertake this study is implied by your proceeding with responding to the questions.

Thank you for your participation

### Section A: Demographic Information

1. Age:

*Mark only one oval.*

18-25

26-32

33+

<https://docs.google.com/forms/d/1oHirQ2eP5LMDw-y1JMZKNSVJcr1Z5MwsqUe1Czk4ktE/edit>

1/7

2. Gender:

*Mark only one oval.*

- Man
- Woman
- I Prefer not to say

3. What is the size of your household?

*Mark only one oval.*

- 1-3
- 4-6
- 7-9
- 10+

4. What is the income range of your household?

*Mark only one oval.*

- Upper income - \$6,000,001 or higher
- Middle income - \$1,500,001 to \$6,000,000
- Low income - \$1,500,000 or less

**Section B. Motivational factors for career selection**

5. At what age did you learn about the career of seafaring?

*Mark only one oval.*

- Less than 11
- 11-15
- 16-20
- 21+

6. How did you come to learn about the career of seafaring? Check that all apply.

*Mark only one oval.*

- School career fair
- Television advertisement
- Word of mouth
- Family or peers
- Other: (please specify) \_\_\_\_\_

7. Do you have any relative that is a seafarer?

*Mark only one oval.*

- Yes
- No

8. How do you rate the role of family influence in selecting seafaring as a career?

*Mark only one oval.*

- Very influential  
 Somewhat influential  
 Not very influential  
 None at all  
 I don't know

9. Why did you choose to become a seafarer? Check that all apply.

*Check all that apply.*

- To travel and see the world  
 For the money  
 Better career prospect at sea  
 Residing in close proximity to the sea  
 Other (please specify):

10. Do you feel that tradition of seafaring influence you to pursue a career as a seafarer?

*Mark only one oval.*

- Yes  
 No  
 I dont know

14. Do you think the government is doing enough to promote seafaring as a career?

*Mark only one oval.*

- Yes  
 No  
 I dont know

15. Did you get any funding from the government or any private entities to pay for tuition?

*Mark only one oval.*

- Yes  
 No

16. Due to your nationality do you face any of the following problems working onboard in a multicultural workplace? Check that all apply.

*Check all that apply.*

- Communication issues  
 Harassment  
 Discrimination  
 Prejudice  
 No problem working with other culture

17. How long after graduating from a maritime education and training institution do you take to get employed?

*Mark only one oval.*

- Less than 6 months after graduation
- 6 months to 1 year after graduation
- 1-2 years after graduation
- More than 2 years after graduation
- I have not gained employment since graduation

18. Would you recommend other Jamaicans to consider seafaring as a career?

*Mark only one oval.*

- Yes
- No

19. In your opinion what do you think Jamaica could do to increase its supply of seafarers?
- 
- 

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