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WORLD MARITIME UNIVERSITY

Malmö, Sweden

GENDER EQUALITY IN THE MALAYSIAN MARITIME SECTOR: RELIGIOUS INFLUENCE ON EMPOWERING WOMEN AT SEA

By

HATIKULLAH BIN AHMAD ONG
Malaysia

A dissertation submitted to the World Maritime University in partial fulfilment of the requirement for the award of the degree of

MASTER OF SCIENCE
In
MARITIME AFFAIRS

(MARITIME SAFETY AND ENVIRONMENTAL ADMINISTRATION)

2019

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Declaration

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

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

Signature : Hatikullah Bin Ahmad Ong

Date : 20 September 2019

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World Maritime University

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Abstract

Title of Dissertation: **Gender equality in the Malaysian maritime sector: religious influence on empowering women at sea**

Degree: **Master of Science**

This research is focused on gender equality in the Malaysian maritime sector from the angle of religious influence on empowering women at sea. This paper will examine the current practices by the shipping companies in Malaysia toward female seafarer employment. In addition, the role of Maritime Education and Training Institutions (METIs) in recruiting more female students to meet the demand from the maritime industry is discussed in this paper. The female sea experience is crucial data for this study especially the experience from Muslim female seafarers because Muslims are the majority group of seafarers in the Malaysian maritime industry.

Women are the under-utilized human resource in the seafaring community. Recognizing women as maritime labour will strengthen the Malaysian maritime human resources which are partially occupied by foreign seafarers in the Malaysian fleet today. However, the challenges faced by them, such as discrimination, bullying, sexual harassment either at METIs or onboard need to be solved in the first place. Furthermore, the current employment practices of female seafarers by shipping companies are not encouraging women to work on their fleet. This gap between education and employment is a major issue for female seafarers after their graduation from METIs.

Despite these problems, most shipping companies did not provide maternity leave for female seafarers. This would make female seafarers difficult to retain within the company. Meanwhile, for Muslim female seafarers, the problems encountered by them such as demotivation and privacy is the main issue that needs to be solved.

In conclusion, the policy change in employment by the shipping companies as well as in the government regarding gender equality will be the first step to encourage more women to choose seafaring as their career for life.

KEYWORDS: Gender equality, women seafarer, Malaysian female seafarer, Muslim female seafarer, Malaysian maritime industry, empowering women at sea.

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List of abbreviations

ALAM	Akademi Laut Malaysia
ASEAN	Association of Southeast Asian Nations
CAAM	Civil Aviation Authority Malaysia
COC	Certificate of Competency
COLREG	International Regulations for Preventing Collisions at Sea
COR	Certificate of Recognition
DCA	Department of Civil Aviation
DSL	Domestic Shipping License
EEZ	Economic Exclusive Zone
EPF	Employees' Provident Fund
ETO	Electro Technical Officer
FOC	Flags of Convenience
GEM	Gender Empowerment and Multi-Cultural Crew
IKMAL	Ikhtisas Kelautan Malaysia
ILO	International Labour Organization
IMO	International Maritime Organization
ISWAN	International Seafarers' Welfare and Assistance Network
ITCP	Integrated Technical Cooperation Programme
MARDEPT	Marine Department Malaysia
MARPOL	International Convention for the Prevention of Pollution from Ships
MASA	Malaysian Shipowner Association
METI	Maritime Education and Training Institute
MIMA	Maritime Institute of Malaysia
MLC	Maritime Labour Convention, 2006
MOT	Ministry of Transport
MSMP	Malaysian Shipping Master Plan
MSO	Merchant Shipping Ordinance
MyWIMA	Malaysian Women in Maritime Association
PTPTN	Perbadanan Tabung Pendidikan Tinggi Negara
PUO	Polytechnic Ungku Omar

RAC	Railway Assets Corporation
RANACO	RANACO Education & Training Institute
RTD	Road Transport Department
SDG	Sustainable Development Goals
SDPX	Sistem Dokumentasi Pelaut
SEF	Seafarer Education Fund
SIRC	Seafarers International Research Centre
SMU	Shanghai Maritime University
SOLAS	International Convention for the Safety of Life at Sea
SPM	Sijil Pelajaran Malaysia
STC	Special Tripartite Committee
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
STEM	Science, Technology, Engineering & Mathematics
UMT	University Malaysia Terengganu
UNCTAD	United Nation Conference of Trade and Development
UNIKL MIMET	University Kuala Lumpur Malaysian Institute of Marine Engineering Technology
UTM	Universiti Teknologi Malaysia
VET	Vocational Education Training
WIMA	Woman in Maritime Association
WMU	World Maritime University

Chapter 1: Introduction

Seafaring is known as the most dangerous occupation (Hansen & Jensen, 1998) and for a long time, mostly dominated by men. The United Nations has adopted the Sustainable Development Goals (SDGs), and Goal 5 promotes gender equality (United Nations, 2019a). Some women are commonly facing discrimination at the workplace in terms of being underpaid, sexual harassment and only a few managerial positions in the company despite their qualifications. The maritime industry is not an exception; the participation of women is still low compared to that of men. For instance, it is estimated that there are only 23,000 female seafarers or 2% globally. Women seafarers work mainly in the cruise and ferry sector. These are among the worst paid and least protected jobs at sea. Women also tend to be younger, and fewer are officers than their male crew mates (International Transport Workers' Federation [ITF], 2019).

The International Maritime Organization (IMO) through its gender-equality and capacity-building programme has addressed the issues related to gender equality in the maritime sectors. The primary objective of the programme is to encourage IMO member States to give opportunities for their women to train in maritime institutes together with males as part of foundation toward gender equality (International Maritime Organization [IMO], n.d.).

In Malaysia, the gender equality is generally accepted nationwide across most sectors. However, the maritime sector is not the case. The participation of women in the maritime sector is still low compared to that of men. Based on the statistics from 2010 to 2017, the Marine Department of Malaysia registered a total of 72,426 local seafarers. The percentage of female seafarers registered within this period was only

2.66% (1,925) whereas 97.34% (70,501) was male seafarers. The total number of certificates of competency (COC) issued by the Marine Department of Malaysia was 35,235 within the same period and 1.05% or 369 COC holders were females but male COC holders were 98.95% or 34,866 (Marine Department Malaysia, 2018).

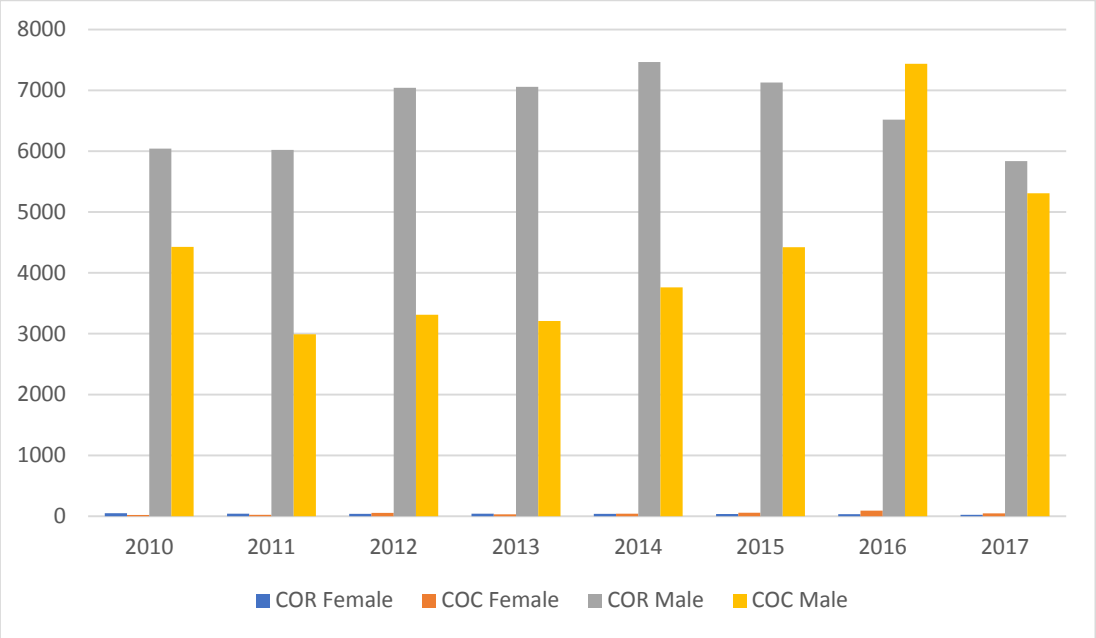


Figure 1: Total Certificate of Competency and Certificate of Recognition issued by the Marine Department of Malaysia (2010-2017)

Source: Marine Department of Malaysia, 2018

There was a significant gap in the maritime industry between female and male seafarers in Malaysia as shown in Figure 1. What are the factors that prevent the female from working onboard, and what are the driving factors to increase their participation to work onboard?

According to the Maritime Transport Review, Malaysia is ranking as 22nd among big ship owned countries with 500 ocean-going vessels above 1000 gross tonnage under the national flag, and 162 vessels are registered outside Malaysia (UNCTAD, 2018). In 2001, a study on Malaysian seafarers was conducted by the Maritime Institute of Malaysia (MIMA). It was discovered that Malaysia relies on the services of foreign

seafarers to fulfil about 44% of the manning requirements on board Malaysian ships (Osnin, 2004). The qualified Malaysian seafarer on board ships had greatly reduced in numbers and Malaysian ship owners now highly depend on multinational crew to operate their ships. This is evidence from the issuance of Certificate of Recognition (COR) by the Marine Department of Malaysia (MARDEPT) as shown in Figure 1. If the participation of Malaysian female seafarers is encouraged, the dependency on foreign seafarers on board Malaysian ships can be reduced and the currency outflow can be minimised and the opportunity of employment will be abundant for Malaysian seafarers to fulfil.

The Malaysian government through the Ministry of Transport (MOT) has established the Malaysian Shipping Master Plan (MSMP) 2017-2022. Under MSMP, five pillars have been identified and among the pillars was to produce 20,000 Malaysian seafarers (Maritime Institute of Malaysia [MIMA], 2017). The MSMP should include the empowering of women in the maritime education since it was not mentioned under these pillars. Reviewing the MSMP is the best option to put forward the agenda of women empowerment in the Malaysian maritime sector.

1.1 History of gender equality in maritime sectors

Gender Equality is Goal 5 under the United Nations Sustainable Development Goals (SDGs). Goal 5 is set by the United Nations to promote gender equality in all sectors like education, work, decent health care and representation in the political and economic decision-making process (United Nations, 2019b).

The participation of women in maritime sectors started in the early 1900s, when most of them work on board cruise ships. They are working in limited, stereotypical female roles such as children nurses, stewardesses and laundresses on board passenger ships (Belcher, Sampson, Thomas, Veiga, & Zhao, 2003). The women participation in maritime sectors is still in limited number. In the 1970s, few maritime training institutions opened their doors to female students. IMO as the United Nations specialized agency, forged a global programme known as the Integration of Women in the Maritime Sector. The programme put in place an institutional framework to

incorporate a gender dimension into IMO's policies and procedures, with the resolution adopted to ensure access to maritime training and employment opportunities for women in the maritime sector (IMO, n.d.).

Women represent only 2% of the world's 1.2 million seafarers, and most of the women are working in the cruise industry. The IMO is making its effort to promote gender equality in the male-dominated industry to support the participation of women in the maritime sector. Within the framework of maritime development, and through its Women in Maritime programme, IMO has taken a strategic approach towards enhancing the contribution of women as vital maritime stakeholders. IMO continues to support the participation of women in both shore-based and sea-going posts (IMO, n.d.).

According to BIMCO/ICS manpower report, the potential shortage of almost 150,000 officers by 2025 is predicted (BIMCO/ICS, 2015). The participation of women in seafaring can be a solution to overcome the seafarer's shortage problem. Women can contribute to the development and economic growth for countries and help to reduce poverty (World Bank, 1994). Women involvement in maritime sectors can increase productivity and performance as validated through research in several sectors, and there is a link between gender balance in a workforce and company performance. Inclusion of women brings more qualified workers to the transportation sector, thus allowing firms to meet their demands for labour and strengthen their bottom lines. Besides productivity and performance, women involvement in maritime sectors can boost company competitiveness and sustain maritime sectors.

1.2 Number and distribution of women seafarers

There is no robust survey and databank for female seafarer's statistics published either by IMO or International Labour Organization (ILO) except the data collected based on the SIRC/ILO study (Belcher, Sampson, Thomas, Veiga, & Zhao, 2003). It is understood that immense proportions of women are working mostly in the ferry and cruise industry as hotel staff and as the study indicated 94 per cent are women working on passenger ships compared to 6 per cent employed on cargo ships. If they

are divided according to the cruise and ferry ship types, 64 per cent of all the women (n=3,554) work on ferries and 26 per cent on cruise ships.

After the SIRC/ILO study in 2003, no comprehensive survey has been carried out regarding the employment trend by shipping companies on women seafarers. Thus, it is difficult to determine the status of women participation as seafarers globally.

1.3 Problem statement

The shipping sector in Malaysia is still heavily dependent on foreign seafarers to crew Malaysian flagged ships. Based on the record of issuance Certificate of Recognition (COR) to foreign seafarers for 2017, totally 5,821 CORs have been issued to foreign seafarers (Marine Department of Malaysia, 2019). According to the president of IKMAL, Malaysia suffers the loss of RM 720 million or USD 172 million outflows per year because of the shipping industry dependency on foreign seafarers (Syed Ali, 2015).

The involvement of female seafarers in Malaysia can be a solution to reduce the dependency on foreign seafarers to crew Malaysian vessels. However, the number of female seafarers in Malaysia is still at a lower rate. Between 2010 and 2017, only 369 Certificates of Competency (COCs) have been issued to female seafarers (Marine Department Malaysia, 2018).

What are the factors that prevent the involvement of Malaysian females into the shipping sector, and what are the factors that will encourage them to stay longer in this industry? This study will evaluate the feedback from the female students at maritime education and training institutions (METI) and existing female seafarers. Aside from that, this study will focus on maritime education and training institutions (METI) providers and ship owners in Malaysia. As Malaysian seafarers are made up of the various races, and according to statistics from the Marine Department of Malaysia (MARDEPT), the Malay race dominates this sector by 47 per cent. Figure 2 shows the summary regarding the COCs issued in Malaysia according to the race

between the period of 2010 and 2017. The data was obtained from the Marine Department of Malaysia (Marine Department Malaysia, 2018).

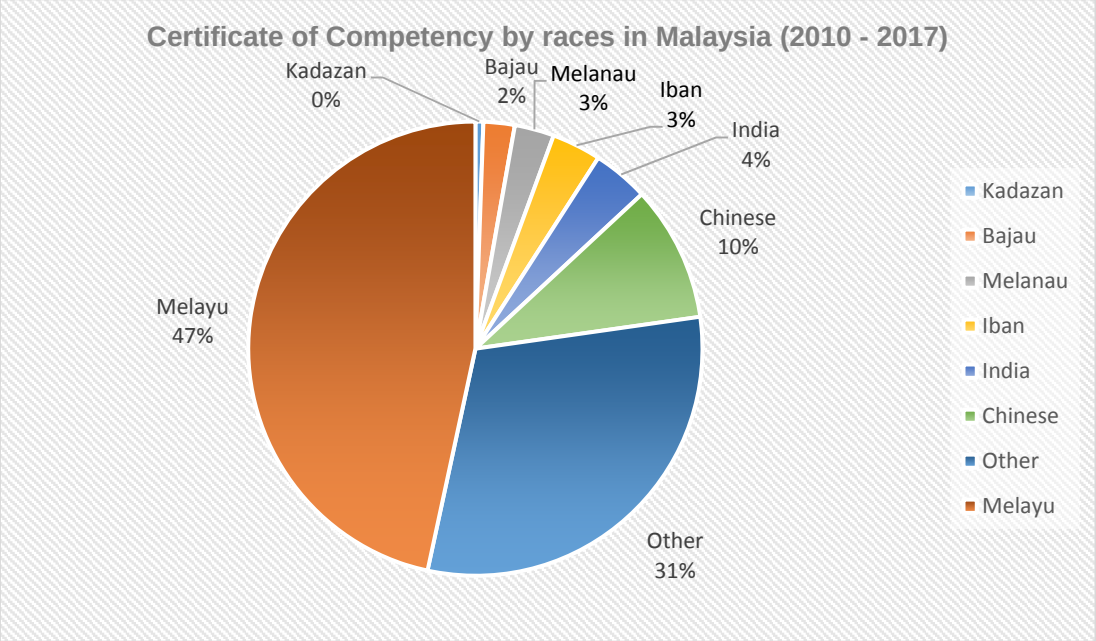


Figure 2: Certificate of Competency by races in Malaysia issued by the Marine Department of Malaysia (2010-2017).

Source: Marine Department of Malaysia, 2018

For Malay female seafarers who are also Muslims, apart from the factors such as sexual harassment and discrimination, religion can also be a factor for them to remain working on board. This study will also examine whether religious factors play a role as an obstacle to Muslim seafarers from working and staying in the shipping industry for a longer time.

1.4 Research objectives

The participation of female seafarers in the maritime sector in Malaysia is still at a low rate. This study will provide a profile based on factors, challenges and driving factors for female seafarers to working on board from multiple angles. The objectives of the study are as follows:

(i) To identify and analyse the barrier of gender equality in the Malaysian maritime sector.

(ii) To understand the religious influence on women seafarers in the Malaysian maritime sector.

(iii) To analyse the current employment practices in promoting gender equality in the Malaysian maritime sector.

1.5 Research methodology

This study will focus on gender equality from two perspectives: gender and religion in the context of Muslim women seafarers. The research first examines the general view of gender equality currently in practice in the Malaysian maritime sector. Two important stakeholders, namely maritime education training institutions and shipowners in Malaysia, are key informants on female seafarers' education and employment. To avoid biases, feedback will be obtained from female students and female seafarers relating to their experience in terms of education and employment. In the second phase, a religious perspective will be explored whether their religious beliefs and practice hinder the participation of Muslim women seafarers. Several aspects will be examined, for example, absence from home, shared bathrooms and the availability of halal food on board with multi-national crew.

The critical informants of this study will be female students at maritime education and training institutions, female seafarers, maritime education training institution (METI) and shipowners in Malaysia. Open-ended and closed-ended questionnaires were utilized to collect data from the respondents. Four sets of questions were prepared for different purposes and different groups of respondents. Each set of questions was designed according to the research objective. Two sets of online survey form were

for female students at METI and female seafarers. The other two sets of question were prepared in hardcopy and sent through email to METI and shipowners in Malaysia.

1.6 Research questions

To understand the status of Malaysian women seafarers, the following questions were developed:

(a) What are the challenges that women seafarers in Malaysia have been facing?

(b) What are the driving factors for Malaysian women seafarers to work on board?

(c) How does the way of Muslim life possibly affect women seafarers in terms of their work and sea career?

(d) What support is provided by shipping companies in relation to women seafarers' employment and retention?

(e) Do Malaysian maritime education and training institutions (METI) attract enough female cadets?

Chapter 2: Literature review

In this chapter, the existing and relevant literature will be examined regarding female students in maritime education, female seafarers' employment and practices, and government policies toward women either in maritime education or employment in Malaysia, Vietnam, China, the Philippines and Japan.

2.1 Participation of Malaysian seafarers

Currently, a limited number of studies have been carried out focusing on gender equality in the Malaysian maritime sector, especially regarding the participation of women seafarers on board. The most relevant study was carried out by Yunus and Said from University Malaysia Terengganu (UMT) on the perceptions, attitudes, and experiences of women officers and engineers on board Malaysian vessels. The study focuses on male seafarers' perspective toward female seafarers working onboard ships based on their experiences having a female colleague on board. According to the result from the survey, most of the male seafarers agreed that when it comes to the profession on board, women and men are equal, and women can perform the task well. Women also tend to give good cooperation in performing the task, and male seafarers are satisfied with the ability of female seafarers to deal with the responsibilities. In addition, there are always a negative perception toward women who work on board, for example women are a potential source of trouble to marital relationships and women are weaker, and therefore prone to the harassment on board (Yunus & Said, 2016).

Another relevant study was conducted by Osnin (2004) on Malaysian seafarers in terms of a policy review. The Malaysian maritime sector relies on foreign seafarers to operate Malaysian ships due to the shortage of Malaysia seafarers. Human resources in the Malaysian maritime industry are critical; therefore, maritime education and training institutions (METIs) play a role in producing the necessary cadets and officers; however, shipowners and manning agencies prefer to hire foreign seafarers on their vessels. To overcome this issue, Osnin (2004) has suggested that the Malaysian government need to review their policy on shipping and integrate human resource development in their framework focusing on more national seafarers instead of foreign seafarers.

Due to lack of studies carried out on female seafarers in Malaysian, the literature reviews continue to explore the existing research in other Asian countries.

2.2 Women seafarer in ASEAN country

2.2.1 Women seafarers in China

According to Zhao, et al. (2017) factors that prevent women from working onboard are sexual harassment, accommodation, food, and cultural factors. Gender discrimination occasionally appears during the recruitment when women seafarers can hardly find a job onboard because shipping companies tend to be reluctant to recruit women seafarers. Results from the study suggest that governments should formulate a strategic plan to empowering women at sea and promoting gender equality in the maritime sector.

In another study carried out regarding the Gender Empowerment and Multi-cultural crew (GEM) project, the report focused on three countries, which were the UK, Nigeria and China. Based on the country report by China the main problems faced by their industry were the lack of public awareness regarding the shipping industry. The majority of the respondents who were motivated to study seafaring courses at Shanghai Maritime University (SMU), have families who know the maritime sectors,

or are aware of seafaring jobs. Employment opportunities for women are limited even after graduating from SMU because shipping companies are reluctant to employ female seafarers. Communication skills were also a problem in the finding because the low English proficiency of Chinese seafarers when working onboard with multinational crews. In addition to the generally low English proficiency, Chinese women seafarers may face discrimination during the recruitment process by shipping companies because of their gender. The Chinese community still believe in traditional customs and stereotypes. They believe women should stay at home doing domestic work and raise children instead of working onboard. The other finding was regarding sexual harassment female seafarers are facing on board ships. As a result, from the studies carried out, the authors stated that the Chinese government had revamped their university requirement policy by banning the usage of wording toward gender discrimination (Pike, et al., 2016). The changes made by the Chinese government regarding the discrimination policy were measures to increase the participant of female seafarers in training institutions and this effort should also be expanded to the industry level.

2.2.2 Women seafarers in Philippines

It is understood that the Philippines is a major supplier of seafarers. According to a study carried out by Tangi (2016) regarding empowering Filipino women seafarers in the maritime sectors, due to the shortage of manpower in seafaring sector, women candidates seem to be the new resources to fill the gap of the shortage. However, to empower women in the male-dominant industry is not an easy task. The studies highlight the problems Filipino female seafarers are facing since they are enrolled in the maritime school until they are working on board as officers; discrimination, sexual harassment and bullying are among the problems raised in her study.

The gender discrimination received by the female seafarers was that they were often considered as a weak and most male seafarers and shipping companies believes that work onboard required heavy lifting and technical experts. Dirty jobs in the engine room is not fit for women; therefore, women tend to be underestimated by male colleagues. This gender discrimination also happens when they are in a maritime

school where the male student often looks down on the capabilities of female students. Female students are excelling in their learning and can be the top student in the class. This situation was not appreciated by the males, and they tend to demotivate the females.

It is noted that the cost for pursuing the study in maritime institutions is a heavy burden and, in the Philippines, there were 23 maritime colleges accredited by the Commission of Higher Education and only three are owned by state; the rest is privately owned. Female seafarers are not the choice for the shipping companies to be their sponsorship student compared to the male counterpart. Because of the operating cost keep increasing, many maritime schools are trying to decrease the female intake to their institutions.

Furthermore, the researcher also found that women seafarers in the Philippines were facing the problem regarding their social life, for example the marriage failure as well as relationship with family and spouse. Due to this problem, many women seafarers choose to give up their seafaring life and focused on their family. In addition, the article discusses that women seafarers are prone to illness when they are working onboard, such as skin problems and the short-term memory loss due to the fumes emitted from the chemicals used in cleaning onboard (Tangi, 2016).

2.2.3 Women seafarers in Vietnam

A study carried out by Van & Minh (2017) regarding how to improve the participation of Vietnamese women in the shipping industry through maritime education and training show low participation of women seafarer in Vietnam shipping industries. This lower rate participation is due to the several factors such as the traditional mindset of Asian people, especially, those who regard women are only responsible at home to take care of the family instead of contributing to the community. Vietnam is facing the problem of seafarer's shortage, and only 45,000 licensed seafarers are now in the shipping industries, and all of them are males. Moreover, Vietnam is facing a gender imbalance where the birth rate 112.2 boys/100 girls makes the promotion of women participation in shipping more challenging.

The author highlights that maritime education and training in Vietnam can play a significant role in promoting the participation of women seafarers. Through the open-door policy, the METI open their door to Vietnamese women to participate in maritime education but the application from female is not so encouraging. A survey has been conducted among female students in the METI regarding why they are choosing shipping programs. The result of the survey shows that they choose shipping studies because they got a low score in the university entrance exam, which is the top reason, high salary in the second place and love for the sea in the third place (Van & Minh, 2017).

The same survey also showed that female students were facing the challenges while they were studying at METI. An example of the challenges they faced were the pressure because they were studying in a male-dominated learning environment. In addition, the female students were also getting fewer opportunities to practice onboard ships as Vietnamese shipowners did not allow females to be on board. The physical strength also became part of the concerns for the female seafarers, and some of the subjects were too technical, so it was assumed that they were not suitable for them compared to the male students. The female students were also facing discrimination in the selection process for the sponsorship because of their gender. They are also faced discrimination from their male colleagues during their studies at METI. For female students to get the license and experience working on board they need to undergo the training for 12 months, but this training was not provided to the female students in Vietnam because shipping companies do not allow women to be on board. Only a few students had a chance to experienced one-day training (Van & Minh, 2017).

The career paths for Vietnamese female cadets were not fortunate compared to those of male students because the Vietnamese government law forbids shipping companies to recruit women in seafaring jobs except for waitresses, receptionists and housekeepers for passenger ships only. This situation raises a concern why in the first place do they recruit female cadets if they were not allowed to work onboard ships as rating and officers. In other words, there is contradiction between METI and

government policy on the recruitment of female students in Vietnamese shipping industries. Female students are willing to work on board the ships as officers or engineers. However, they are concerned that after they get married, they need to focus on their family because of the traditional roles of women in the Vietnamese community (Van & Minh, 2017).

2.3 STEM career and vocational education and training in Japan

In a different study conducted by Kitada & Harada (2019), the role of vocational education and training (VET) was investigated in the STEM workforce to advance women integration into traditionally male-dominated workplaces by comparing the three transport sectors (sea, air and rail) in Japan.

This problem is due to several reasons such as the institutions of Japanese education, and career development, which is generally discouraging the Japanese women from pursuing STEM careers, traditionally regarded as unsuitable for women. The company-led VET is often choosing the male as their recipients for training benefits. Women do not have the same level of access to the company-led VET as the male does (Kitada & Harada, 2019).

Apart from cultural stereotypes, similar gender-related challenges are observed across the transport sectors. For example, working conditions may be poor in terms of wages, access to training, odd working hours, which are challenging to balance with family responsibilities, male-centred ergonomic working environments and equipment, and the risk of violence and harassment. These women's minority problems are often overlooked at the organisational level due to the organisational structure of horizontal gender segregation (Kitada & Harada, 2019).

Japanese women in the air force and rail sector have better retention rate compared to the women in the merchant marine. Based on the comparative analysis of three Japanese transport sectors (merchant marine, air force and rail), it appears that the case of the merchant marine shows a gap between school-based VET and company-led VET, limiting the participation of women in seafaring and contributing to their poor

retention rate. The women in the merchant marine have less opportunity for further training and contribute to their retention in the field compared to the women in the air force and rail sector (Kitada & Harada, 2019).

2.4 Summary

From the existing literature regarding empowering women in seafaring, the policy implemented by the government, shipping companies and METIs is not favourable to women. The changes in policies implemented by the government, shipping companies and METIs can be a milestone for the changes in the perception that women are equal to men. Apart from the policy, women seafarers faced the challenges and discrimination during their studies and when they served on board. The problems such as bullying and harassment are often discussed in many kinds of literature. Female seafarers are also subject to discrimination by the shipping companies in terms of the employment.

Chapter 3: Malaysian maritime industry and population

In this chapter, the Malaysian maritime industry and population will be briefly discussed. For the Malaysian maritime industry it will be divided into regulatory, manning and training sectors. The main regulatory bodies for the maritime industry in Malaysia under the purview of the Ministry of Transport and the responsible agencies to implement the policy related to the shipping are the Marine Department of Malaysia. The training sector will discuss how maritime education and training institutions can attract female students to enrol in their academies. The involvement of female seafarer's in the association such as Ikhtisas Kelautan Malaysia (IKMAL) and Malaysian Women in Maritime Association (MyWIMA) is examined in this chapter. Lastly, the connection between the shipping industry and the population of Malaysia will be discussed. Based on the statistics, the ratio of male and female students in Malaysia is 100 males to 107 females. Females can be a new human resource to substitute foreign seafarers currently operating half of Malaysian fleets.

3.1 Malaysia as a maritime nation

Malaysia's strategic position between the vital shipping lanes of the Malacca Strait has made Malaysia strategically important as a maritime country in the ASEAN region. Malaysia is formed by 14 states where 12 states are in peninsular Malaysia and the other two states in the Borneo island separated by the South China Sea. Due to this unique geography, the maritime sector is very important to drive economic development between peninsular Malaysia and Sabah and Sarawak. Being a littoral state surrounded by a vast maritime area, this sector provides the basis for the growth

and development of marine-related activities ranging from marine fishing to crude petroleum and natural gas production and sea transport service (Saharuddin, 2001).

Today Malaysia counts 8 federal administrative ports, which are respectively: Port Klang, Port of Tanjung Pelepas, Johor Port, Penang Port, Bintulu Port, Malacca Port, Kuantan Port and Kemaman Port. Furthermore, there are ports administrated by the state governments in Sabah and Sarawak and several private owned port facilities and jetties across the country, including in Port Dickson and Lumut, mainly for the benefit of the mining and oil and gas industries (Ministry of Transport Malaysia, 2019). The Malaysian main ports location shown in Figure 3.

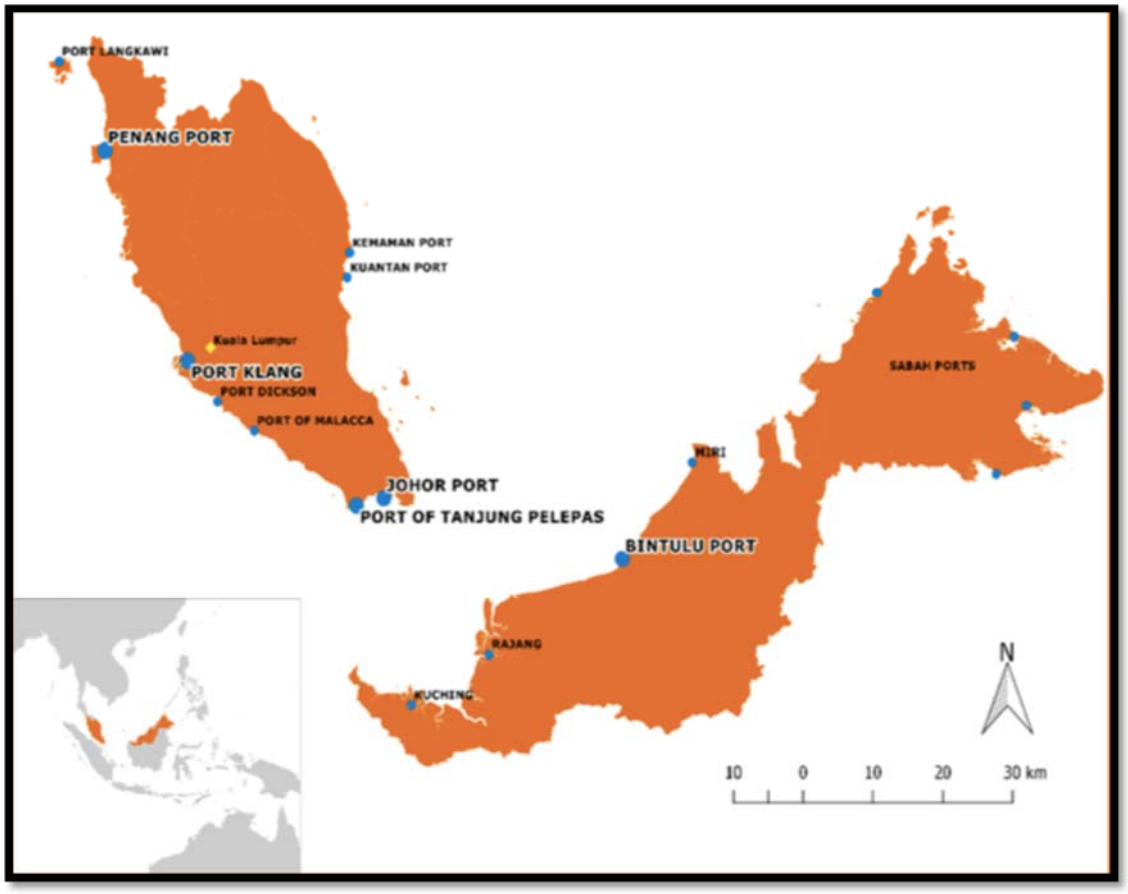


Figure 3: Ports location in Malaysia

Source: Ministry of Transport, Malaysia 2019

The booming oil and gas industry in Malaysia has created an opportunity for support industries, such as offshore service vessels and shipbuilding and ship repairing industry. In 2017, the oil and gas industry employed 36,776 persons onshore and offshore (Department of Statistic Malaysia, 2019). Based on the statistic issued by the Marine Department of Malaysia from 2010 to 2018, totally 1,929 ships have been registered with a gross tonnage of 4,722,621.24 (Marine Department of Malaysia, 2019). These Malaysian vessels serve the shipping industry domestically and internationally.

3.2 Malaysia maritime law

Merchant Shipping Ordinance (MSO 1952) is the primary national law that governs all maritime-related activities like ship registration, cabotage policies, the seafarer's affairs, ship safety and security. Apart from the MSO 1952, there are two more MSOs, i.e., 1960 for Sarawak and MSO 1960 for Sabah. The reason why three MSOs exist today is because of the formation of Malaya and the State of Sarawak and Sabah. MSO 1952 is the primary used in governing Malaysian shipping sectors. MSO 1952 will be amended if new regulations are adopted by IMO and rectified by Malaysia. The latest amendment in MSO 1952, related to the Maritime Labour Convention 2006, took place in 2016. All matters related to the seafarers' training and welfare are being incorporated under part III of MSO 1952 (Marine Department Malaysia, n.d).

3.3 Maritime administration in Malaysia

Since 1953, transportation-related matters have been dealt with under the purview of the Ministry of Transport (MOT). Four modes of transportation, which are air, road, rail and sea are under the MOT responsibility. The ministry functions are to establish and implement the policies related to transportation sectors involving air, rail, road and sea. Besides, the ministry also facilitates the business related to transportation sectors. For transportation policies to be implemented effectively, several agencies have been established for each transportation mode. For aviation industries the responsibilities lie under the Civil Aviation Authority of Malaysia (CAAM), previously known as the Department of Civil Aviation (DCA), Road Transport Department (RTD)

is responsible for road transport sectors while for the rail sector the responsible agency is Railway Assets Corporation (RAC) and Marine Department (MARDEPT) for governing maritime transportation and industries in Malaysia.

Before the establishment of the Marine Department of Malaysia, the marine department consisted of three independent departments, which were the Marine Department of Peninsular Malaysia, Marine Department Sarawak, and Marine Department Sabah, which used to have a different head of services. As of 1 January 2011, the Marine Department Peninsular Malaysia, Marine Department Sarawak and Marine Department Sabah have merged into one and is known as the Marine Department of Malaysia (Marine Department Malaysia, n.d.).

For effective implementation and enforcement of maritime-related regulations, eight divisions were established under the Marine Department of Malaysia. This department has its objective according to their functions by specialised divisions: safety navigation and maritime communication division; port, logistic and trade division; safety, security and marine environment division; shipping and seafarer development division; maritime industrial control division; traffic management and aids to navigation division; and maritime operation division and ship registry (Marine Department Malaysia, n.d.).

Malaysia is a member of the International Maritime Organization (IMO) and has rectified the international conventions, such as SOLAS, MARPOL, STCW, and COLREG. The Marine Department of Malaysia is responsible for implementing and enforcing the international conventions into Malaysia maritime sectors. One of the main functions of the department is to issue the seafarer licenses and to conduct the audit and accreditation to the maritime education and training institutions as complied with the international standard under the STCW Convention.

3.4 Malaysia maritime industry and fleet

Shipping sectors in Malaysia can be divided into several sectors like container, oil and chemical, liquefied natural gas tanker, offshore support vessel for oil and gas industry and the passenger cruise sector.

The Malaysian domestic shipping industry is well protected by cabotage policy. As a result, only Malaysian ships can operate in the domestic shipping business. Vessels that provide services other than fishing in Malaysian waters, including exclusive economic zones (EEZ) such as dredging, underwater cable and pipe installations and the hydrographic survey also require Domestic shipping licenses (DSL). Under section 65KA of MSO 1952, only Malaysian ships can provide domestic services in Malaysian waters including EEZ. However, foreign vessels may be allowed to provide domestic shipping services with the minister exemption. (Ministry of Transport, Malaysia, 2019).

The Malaysian Shipowner Association (MASA) was established in 1976, with the primary objective of protecting and promoting the interests of Malaysian shipowners. As the only national industry organisation representing shipowners in the country, the Malaysia Shipowners' Association (MASA) has a central role to play in the development of the shipping industry in the country. MASA has taken this role seriously and often played critical roles in highlighting issues aimed at enhancing and strengthening the development of the national shipping industry. Under the association, there were 108 ordinary members and 158 associate members (MASA, 2019).

Based on the current report on maritime transport review, Malaysia is ranking as 22nd among big ship owned countries with 500 seagoing vessels above 1000 gross tonnage under national flag and 162 vessels been registered outside Malaysia (UNCTAD, 2018).

3.5 Maritime education and training institution in Malaysia

The METIs in Malaysia have expanded, and the number keeps increasing to cope with the demand and supply of the maritime industry. According to MARDEPT, a total of 36 METIs has been approved and accredited (Marine Department of Malaysia, 2019) and these METIs are capable of delivering the STCW course-related and only two of these provide training to new entrants, namely Malaysian Maritime Academy (ALAM) for cadets and ratings, and Polytechnic Ungku Omar (PUO) for engine cadets only (Osnin, 2004).

From the total number of METIs, 31% is owned by the government and the remaining 69% is privately owned. Furthermore, it shows that private METIs play a more significant contribution to knowledge transfer for job requirement (Othman & Naintin, 2016). Only three private METIs in Malaysia provide courses for 'Officer in Charge of Navigation Watch 500GT or More Unlimited Voyage', compared to five institutions that provide a course on 'Officer in charge of Engineering Watch 750kW or More Unlimited Voyage'. The Malaysian seafarers have another reason to be concerned as there is only one private METIs in Malaysia known as the Malaysian Maritime Academy (ALAM), which provides both 'Combine Master and Chief Officer 3000GT or More Unlimited Voyage' and 'Combine Chief and Second Engineer Officer 3000kW or More Unlimited Voyage' (Othman & Naintin, 2016).

The Malaysian Maritime Academy (ALAM) is the oldest maritime institution in Malaysia and has produced many qualified seafarers until today, and together with 34 METIs have been accredited by the Marine Department of Malaysia. The programs offered by ALAM consists of deck and engineering. In addition, ALAM also offered the modular course as required by the STCW Convention. Other institutions were training marine engineers like Polytechnic Ungku Omar (PUO); however, this institution only trained male marine engineers.

METIs play a significant and essential role in the supply and provision of qualified seafarers for serving Malaysian vessels. In addition to ALAM and PUO, University Malaysia Terengganu (UMT), University Technology Mara (UTM), UniKL MIMET and

RANACO provide programs in Diploma, Bachelor's degree and also Master's and PhD's degrees for student involved with the maritime supporting industry such as maritime management, marine surveyor, naval architect, port and harbour personnel and many more.

Education is an integral part of any global effort to promote gender equality. By helping to develop the capabilities of women, education is the most powerful medium to deliver change and to change gender stereotypes. To ensure METIs to deliver capabilities among women, the government and METIs need to develop and provide high-quality education, equip women with STEM capabilities and give education in financial and digital literacy.

With the withdrawal of the colonial administrations from the region from the mid-1940s and the expansion of national merchant shipping in the ASEAN countries, it has become essential to train a pool of seafarers to serve on nationally-owned vessels. For historical reasons, the training institutions for seafarers in the ASEAN region have evolved differently. Strong ties with former colonial metropolitan states have been a dominant influence. In the case of Malaysia, which maintained strong links with British shipping customs, has modelled training institutions mainly after the British system (Chia, 1989).

The fundamentals for a system of training seafarers in Malaysia include an appropriate organizational and legal framework; proper certification of competency for officers and ratings; an established system of examinations; adequate physical infrastructure, training equipment and facilities; and a body of trained instructors (Chia, 1989a). To the present, all METIs in Malaysia should be audit and accredited by the Marine Department of Malaysia. This measure is to make sure all the METIs in Malaysia have complied with the STCW convention pertaining the seafarers training and for quality assurance for the shipping industry to employ Malaysian seafarers.

3.6 Malaysian Women in Maritime Association (MyWIMA)

In 2017 Malaysian Women in Maritime Association (MyWIMA) was established in parallel with the aims and objective of the International Maritime Organization (IMO) Resolution A.1098 (29) agenda 8, which is to maintain, promote and demonstrate the linkage between the ITCP and the Sustainable Development Goals (SDGs) and to strengthen the role of women in the maritime sector. Thus MyWIMA roles' are to strengthen the relationship among the women in maritime sectors, to empower women roles at high-level management while highlighting the expertise in women and optimize the expertise to contribute more efficiently to the maritime sectors. MyWIMA membership consists of professional in various maritime sectors such as from maritime administration, ports and harbours and seafarers. To date, MyWIMA members accounted for 150 in total, and 100 of them are female seafarers[1].

With the establishment of MyWIMA, female seafarers in Malaysia can benefit from a global network of IMO's WIMAs around the globe. For a long time, women have been discriminated in relation to practical support and promotion opportunities. In the shipping industry, a considerable benefit can be derived from a regionally cohesive approach to the harmonized implementation of IMO instruments; and a key to that strategy is the work undertaken by formal associations, hitherto mostly organized by male officials whose networks provide practical operational tools for improved communication. The women involved in the networking can harvest the benefits such as a higher training opportunity; have greater visibility in the workplace; increased recognition from colleagues and employers; practical forum for the exchange of information on the effective implementation of international instruments; and increased awareness, by national administrations, of the role of women as a valuable professional resource (Tansey , 2015).

[1]MyWIMA member through a personal communication, July 17, 2019

3.7 Ikthisas Kelautan Malaysia (IKMAL)

Ikthisas Kelautan Malaysia (IKMAL) was established in Feb 1985 as the Institut Kelautan Malaysia and registered with the Registrar of Societies (RoS). It was initially formed to act as a professional body representing the interests of maritime professionals in Malaysia. In 2012 the former Director General of the Marine Department Malaysia (MARDEPT) proposed to the former President of IKMAL that the association should amend its constitution to include to representation, promotion and protection of the interests and welfare of IKMAL registered members by complying with generally recognised international standard operating procedures, which will be monitored by its permanent secretariat through its international links and affiliations worldwide.

The amendment of IKMAL constitution due to impending ratification by Malaysia of the ILO Maritime Labour Convention (MLC) 2006, which required that there should be a seafarers' organization that is seen to represent seafarer rights and can be a member of the Special Tripartite Committee (STC) established under the provisions of the MLC, 2006.

In January 2016, MARDEPT acknowledged IKMAL as a member of the Special Tripartite Committee under the MLC 2006. IKMAL is a member of the International Seafarers Welfare Assistance Network (ISWAN), a global organisation whose primary responsibility is the protection and preservation of seafarers' rights and privileges all over the world.

IKMAL has been actively representing its members who have been unfairly treated by their employers (e.g. unpaid wages; non-contribution of EPF deductions; unfair dismissal; non-replacement on board even though contractual service has completed). It also provides annual "Seafarers Education Fund (SEF)" grants to deserving members to help defray part of their costs of them appearing for their STCW courses.

To date, IKMAL has 811 registered members, and from this number only 18 are female seafarers[2].

3.8 Seafarer registration in Malaysia

Each person who wants to work onboard ships in Malaysia is required to hold a Certificate of Competency and take modular courses as outlined under the Merchant Shipping Ordinance 1952, and the STCW Convention. Malaysia citizens aged 18 years old and intended to work onboard ship should have a valid license issued by the Marine Department of Malaysia.

The Marine Department of Malaysia has developed an integrated system for seafarer registration, and known as *"Sistem Dokumentasi Pelaut"* (SDPx). The Seafarer Affair and Port Development Division are responsible for doing the registration for the seafarers in Malaysia. To facilitate this seafarer registration process across Malaysia, almost all marine department port offices have the facilities and hardware to produce the seafarer identification card and seafarer service book. The other modules under SDPx are for rating application, certificate of competency, medical practitioner certificate and safe manning certificate.

For foreign seafarers working on board Malaysian ships, they are required to apply for the seafarer identification for foreigners. Typically, the shipping companies will hire foreign seafarers, and the company will manage the application for foreign seafarer identification and certificate of recognition with the Marine Department of Malaysia.

The existence of *Sistem Dokumentasi Pelaut* (SDPx) can harmoniz the process of seafarer registration and can safely protect the seafarer information. Furthermore, through this system, the seafarer statistics can be generated quickly and at any time, and any place compared to the manual registration.

[2] Senior Member through a personal communication, July 11, 2019

3.9 Women seafarers and gender equality in Malaysia

The participation of women seafarers in the Malaysian maritime sector is still at a lower level. This situation can be seen from the statistics of registration for female seafarers by the Marine department of Malaysia between 2010 and 2017, when the number of female seafarers only amounted to 1,925 compared to 70,501 of male seafarers. According to the Department of Statistics Malaysia (2018), Malaysian gender gap index (MGGI) for 2017 is 0.697 and to achieve gender equality, the score should be 1.0. This score portrays gender inequality with the gap of 0.303. This indicator measures the women empowerment in eight main domains which are economic structure, participation in productive activities and access to the resources; education; health and related services; public life and decision making; human rights of women and girls; social protection; disaster risk reduction and peace and security. For sub-index educational attainment, equality already reached with a score of 1.040, and this indicates that women achievement has surpassed men. Meanwhile, for economic participation and opportunity, the score is 0.726 (Department of Statistics Malaysia, 2018). According to the Global Gender Gap Report 2018 produced by the World Economic Forum, Malaysia's global ranking is at the position of 101 from 149 countries (World Economic Forum, 2018).

Based on the statistics above, the participation of women in economic sectors still has a gap compared to males. The maritime sectors especially seafaring, is one of the high-income careers and yet this sector still do not employ the adequate number of women. The continues effort, and suitable platform should be given to them to increase the participation and the number of women seafarers. Many countries are already promoting gender equality and women empowerment in their maritime sectors. With the women involvement in economic development activities, the poverty rate can be reduced and its already proven.

The establishment of Women in Maritime Association (WIMA) can be a platform for women to discuss and come out with better resolution about their rights and concern in the maritime industry. WMU through the International Women's Conference has provided the platform to all women involved in the maritime sector to discuss and come out with the resolution for women interest (World Maritime University, 2019).

According to the secretary-general of IKMAL, 11 female cadets were recruited by the Akademi Laut Malaysia (ALAM) in 2007, and three of this pioneer group had attained the rank of Chief Officer on LNG vessels in 2018 (ISWAN, 2019).

To interpret the significance of women seafarers and to express the level of determination by IMO, the theme for 2019, the day of seafarer selected is *IamOnboard.* This significant theme is to emphasize to all people that women need to be treated at same level as men to have equality. The maritime industry stakeholders need to incorporate gender balance and equality within their organization.

In Malaysia, the absence of a reliable database regarding women seafarers employed on board based on the sector is one of the challenges in determining how big the proportion of women seafarers is still active in the industry. Thus, the percentage of women involved in seafaring is just based on the seafarer registration retained by the MARDEPT.

3.10 Malaysia population by races and religions

Malaysia is a unique country because of its multiracial and religious populations. Based on a census report of the population issued by the Department of Statistics Malaysia the ethnic composition in Malaysia is broken down into four large ethnic groups, namely Bumiputera, Chinese, Indian and others (Department of Statistics, Malaysia, 2018). Bumiputera population accounted for 20.07 million (69.1%), Chinese 6.69 million (23.0%), Indian 2.01 million (6.9%) and others 0.29 million (1.0%).

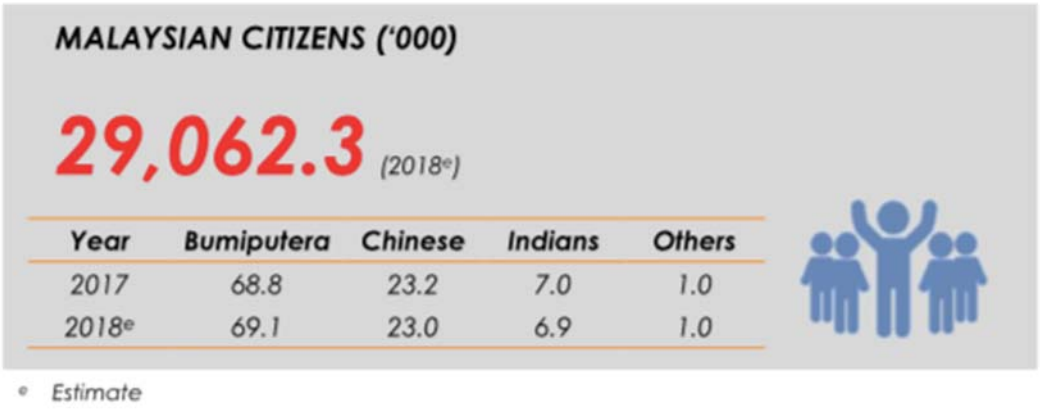


Figure 4: Population of citizens by ethnic group, Malaysia (2017-2018).

Source: Department of Statistics, Malaysia 2018

Bumiputera comprising Malays are the primary race in peninsular Malaysia with the percentage of population 63.1 %, followed by Iban 30.3% who reside in Sarawak whereas Kadazan and Dusun representing 24.5% of the population reside in Sabah (Department of Statistics,Malaysia, 2010).

From the perspective of religion, Islam is the official religion in Malaysia and Islam is the most widely practised religion in Malaysia with a percentage of 61.3%, while Buddhism is practised by 19.8%, followed by Christians with 9.2% and Hindus 6.3% (Department of Statistics,Malaysia, 2010). Malaysia constitution Article 3 (1) states that the religion of Islam is the official religion of the federation, but other religions can be practiced peacefully in any part of the federation (Judicial Appointments Commission, 2019).

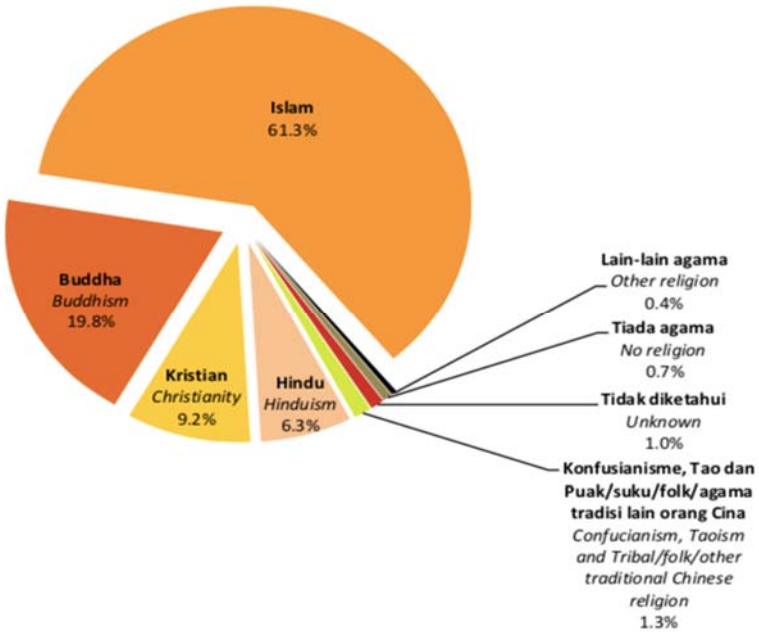


Figure 5: Percentage distribution of the population by religion, Malaysia, 2010

Source: Department of Statistics, Malaysia 2010

The population of Malaysia by gender for 2018 is 16.7 million men compared to 15.7 million women, with the male gender ratio of 107 for every 100 women (Department of Statistics, Malaysia, 2018). A total of 22.58 million Malaysians are aged 15-64 years, which can be categorized as the right age to be used as a workforce to spurs the Malaysian economic growth.

With a ratio of 107 males to 100 women, it shows that Malaysia has roughly equal male and female workforce. Female workforce can be used to meet the needs in the shipping sector, especially seafarers. Opportunities should be given to them to prove that they also have a high level of competitiveness compared to men. Most of the employment sectors onshore such as the government and private sectors, appoint many women to hold high positions. A case in point is the Governor of the Malaysian Central Bank who is a woman and she has been selected as the best Central Bank Governor in Pacific Asia for the year 2019 (The Banker, 2019).

Chapter 4: Maritime industry practices in Malaysia

This chapter will discuss the result from the survey feedback provided by shipping companies. The survey questionnaire is divided into three (3) parts. Part A is to collect the company information such as company category, the number of ships they own, and type and size of their fleet. Part B is dealing with the seafarer employment statistics according to the type of ships, rank, gender and the nationality of the crew. However, for part C, the question is more on the policy implemented by the company such as female employment, sexual harassment and the halal certification onboard their vessels. Detailed explanations regarding the shipping company practices in Malaysia are presented in the following sections.

4.1 Company and fleet information

For confidentiality purposes, the actual shipping company names were anonymous. The questionnaire has been submitted to 50 shipping companies. However, only 15 companies responded. Figure 6 explains the total number of vessels owned by the shipping companies participated in the survey. For analytical purposes, the shipping companies are grouped into the largest number to a smaller number of vessels. From the Figure 6, it can be seen that two (2) shipping companies owned more than 30 vessels, three (3) companies owned more than 20 vessels, four (4) companies owned more than ten vessels and six (6) companies owned less than ten vessels.

The type of vessel owned by 15 shipping companies participating in the survey can be divided into container vessels, oil/chemical tankers, general cargo vessels and other types of vessels. The majority of the vessels (69%; n=142) owned by shipping

companies are from other types of vessels including offshore support vessels, dredgers and accommodation workboats. For container vessels, the number owned by shipping companies is 35 vessels with a percentage of 17% from the total. Further, the number of oil and chemical tankers owned by the shipping companies is 20 tankers and the smallest types of a vessel owned is general cargo vessels with nine vessels only.

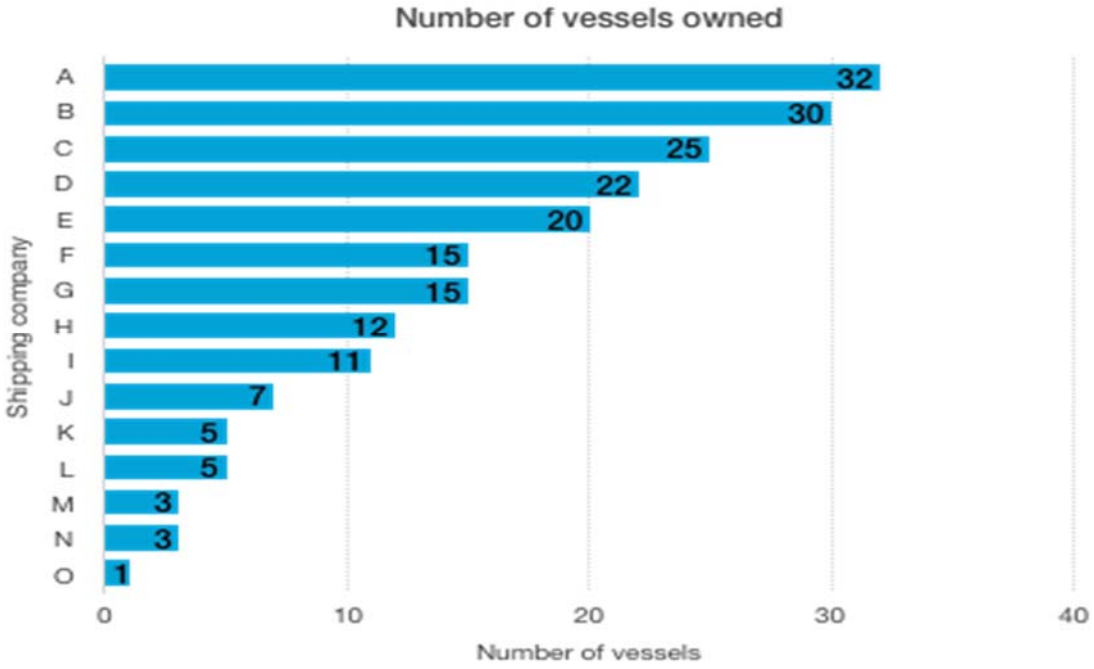


Figure 6: Number of vessels owned by shipping companies

Source: Author

The average size of ship is grouped into five categories. Figure 7 shows that only one company that owned a vessel with a size of more than 20000GT. The number of shipping companies owned the vessel with an average size between 10000 and 20000GT are two companies; five companies own ships with an average size between 5000 and 10000GT. Furthermore, three companies owned vessels between 3000 and 5000GT, and four companies owned vessels with a size of less than 3000GT.

Based on the number and type of ships owned by shipping companies, it portrays enough position to employed local seafarers especially females rather than choosing foreign seafarers to operate their vessels.

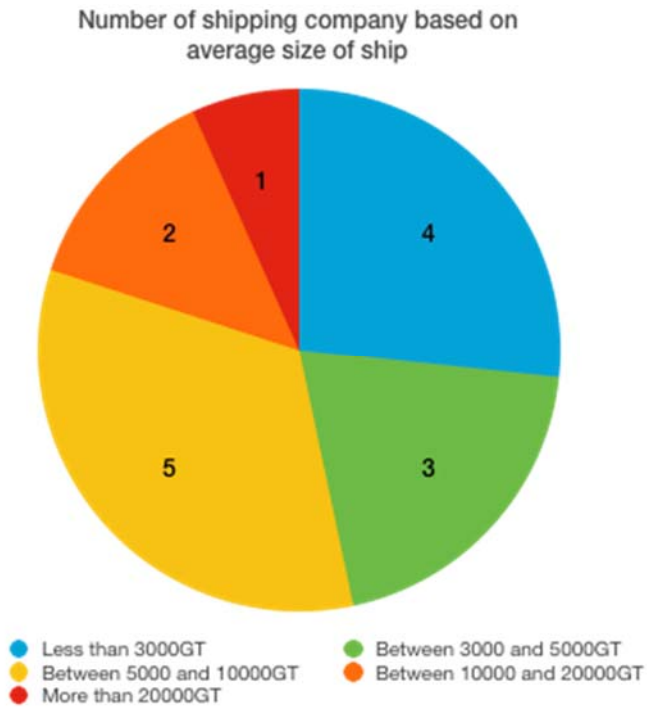


Figure 7: Number of shipping companies based on the average size of the ship.

Source: Author

4.2 Employment of seafarers by shipping companies

The establishment of the Malaysian International Shipping Corporation (MISC) by the Malaysian government in 1968 marked the entry of the Malaysian shipping industry into international shipping (Suffian, Abdul Karim, Rosline, & Fadzil, 2013). The government efforts to strengthen its shipping industry has also helped a few numbers of local shipping companies to emerge, mainly Bumiputra ownership, that is involved

in international trade, such as Halim Mazmin Berhad, Nepline, Global Carriers, Perkapalan Dai Zhun, and Malaysian Merchant Marine Berhad (Suffian et. al, 2013).

The expansion of Malaysian fleets, has led shipping companies to recruit seafarers. The scarcity of human resources gradually decreased in Malaysia while most ship owners opt to hire foreign seafarers to operate their vessels due to low cost. The preferred foreign seafarers are largely from Indonesia, India and the Philippines. Ding and Liang (2005) revealed through their empirical study the shipowners' preference of hiring seafarers. The hiring decision is significantly affected by the crew salary, i.e. the higher the salary level is, the more preferred the national shipowners have in recruiting the less-expensive foreign officers and foreign ratings.

With reference to the survey result, the shipping company prefers to hire foreign seafarers compared to the local seafarers. Shipowners prefer to hires foreign seafarers rather than local seafarers, especially female seafarers: therefore, it is difficult for female seafarers to find employment. Indeed, this situation is proven with the statistics on seafarer's employment collected through the survey carried out. From the statistics, the employment pattern can be analysed by the shipping companies in Malaysia regarding female seafarers. Only a few Malaysian shipping companies are open to hiring female seafarers in their fleets, and the number of females hired by these companies is small. This situation may be due to the fact that shipowners in Malaysia prefer choose foreign seafarers because of the cheaper cost compared with local seafarers.

The data for female seafarers employed by shipping companies involved in this survey are tabulated in Table 1. From the data, the employment of female seafarers is very low. With a total of 52 female seafarers employed, 28 of them are Malaysian, and 24 female seafarers are Non-Malaysian. Within 15 shipping companies, only three companies employ female seafarers on their fleets. Forty-five female seafarers have been employed by shipping company A, four females by shipping company B and three females by company C.

Table 1: The distribution of female seafarers employed based on shipping companies.

Shipping Company	Male		Female	
	Malaysian	Non-Malaysian	Malaysian	Non-Malaysian
A	251	178	24	21
B	87	417	4	0
C	664	89	0	3
D	10	50	0	0
E	9	122	0	0
F	35	195	0	0
G	130	18	0	0
H	146	2	0	0
I	155	32	0	0
J	146	70	0	0
K	97	103	0	0
L	59	0	0	0
M	13	0	0	0
N	9	2	0	0
O	8	0	0	0
Total	**1819**	**1278**	**28**	**24**

Source: Author

If analysing the employment number for male seafarers, it shows a large gap, compared to the women with the total number of males employed accounting for 3,097. From this number 1,819 were Malaysian, and 1,278 were foreigners as Figure 8 shows. The female employment percentage was only 1.7% whereas the male employment was 98.3%.

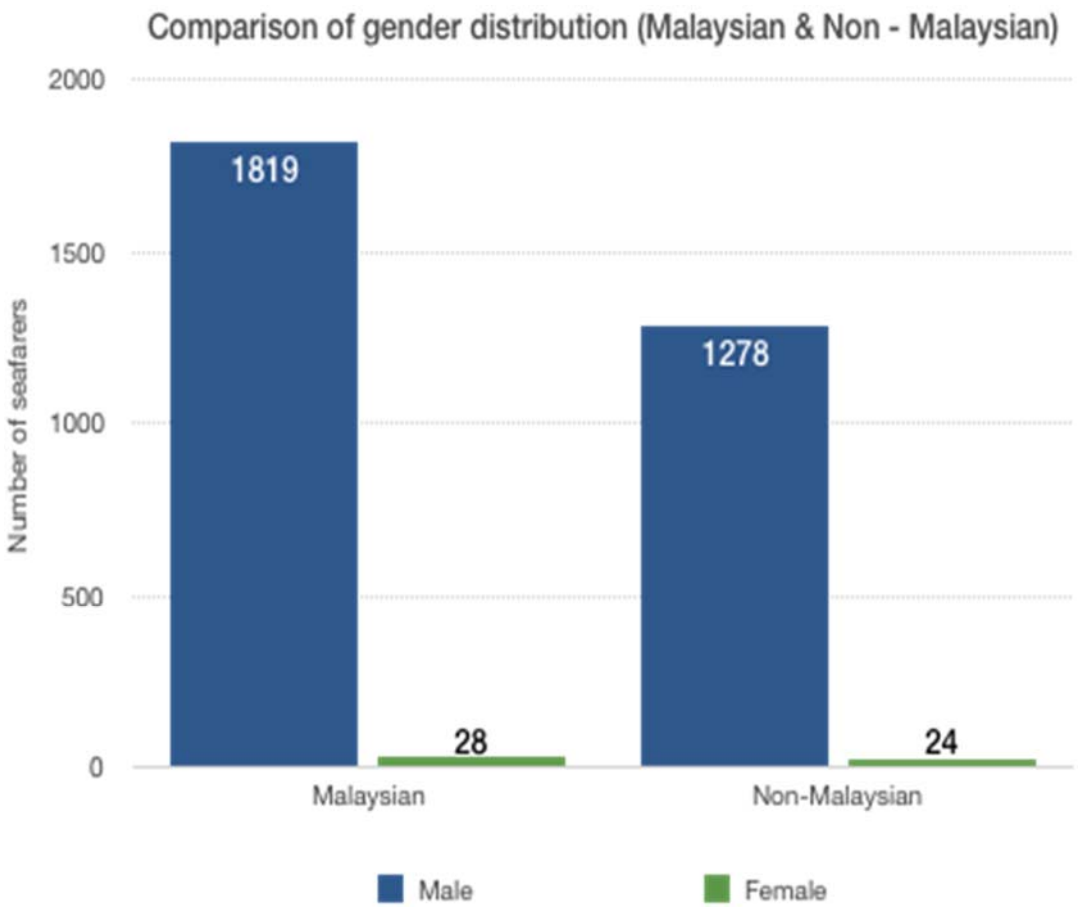


Figure 8: The comparison of gender distribution (Malaysian & Non-Malaysian) hired by shipping companies as of (July 30, 2019).

Source: Author

If dividing the employment of females according to their rank on board, Malaysian female officers comprise 43% compared to foreign female foreign officers with the total percentage of 57%. While for female ratings, the foreigners dominated the employment with the percentage of 75% compared to the Malaysian ratings with only 25% as shown in Figure 9.

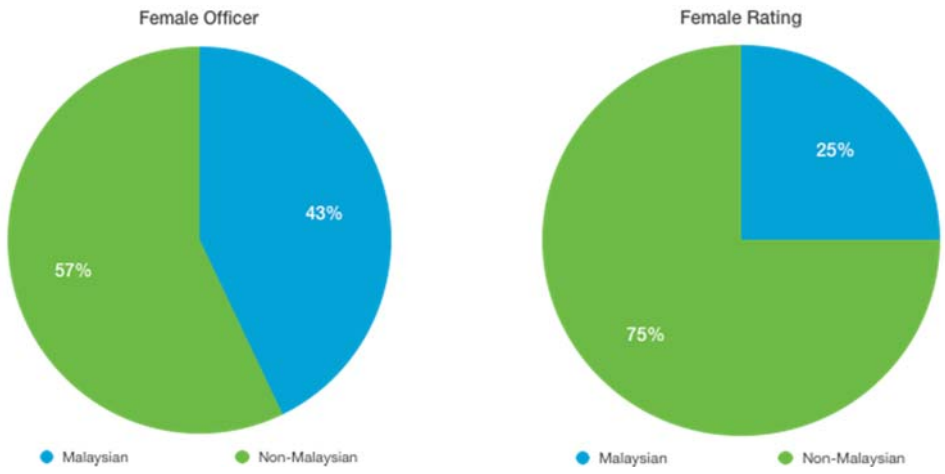


Figure 9: Female seafarers by rank (Malaysian & Non-Malaysian) hired by shipping companies as of (July 30, 2019).

Source: Author

The figures show there is an opportunity for replacing the foreign seafarers with the female seafarers with at least 25% of the total number of foreign seafarers. However, the question is whether there are enough female seafarers recruited by METIs to occupy that large proportions of employment and how willing the shipowners are to employ women seafarers on their vessels.

4.3 Policy on female seafarers' employment

The focus on the shipping companies is whether they have specific policies regarding female employment in their fleets. From 15 companies, few of them have specific policies regarding the employment of female seafarer[3]. Only two companies have responded that their companies have a specific policy on the employment of female seafarers and the 13 companies did not have any specific policy. The policies developed by company D is to encourage female employment whereas company G does not to encourage them. Although the company A, E, F, I, K, L, M, N and O did not have specific policies concerning female seafarer employment, there are chances

[3] Refer to appendix A.

for females to be appointed within their company according to the feedback given by them.

Some of the shipping companies would not employ female seafarers for a certain position onboard such as rating and able seamen. The reason given by the company D is because they prefer to train the female to become an officer or engineer only and the other reason given by company O is because the nature of work needs physical strength and women are exposed to danger, eg. piracy. Company E, K, L, M, N and O did not have a specific policy regarding female seafarer employment. However, there is a tendency for female seafarers to be employed by their company in the future.

The other policies related to females were the sexual harassment policy. Company A, G, J, K, L, N and O already have their sexual harassment policy in place. From the feedback provided by company D and F, the most frequent complaint received by them from female seafarers is regarding sexual harassment and the drunk crews. The implementation of specific policy concerning female seafarers can be a good solution to employ more females in this sector and to give a secure feeling for them to work onboard.

4.4 Halal certification on board ship

Muslim individuals are subject to the Islamic rules in their daily life activities. In Islamic rules, there certain things they can do and cannot do, including their everyday diet. Shipping is an international business, and the crew manning the vessel is comprises many nationalities and different cultures and different religions. The difficulties to the access halal food[4] for Muslims is a challenge that needs to be tackled to increase the participation of Muslim seafarers, especially female. Based on the survey, eight shipping companies did not have a Halal certification from the Islamic Authority in Malaysia[5] while seven companies declared that they already obtained a Halal certification onboard their vessels. However, some of these companies which responded that they have a Halal certification actually did not hold it and instead referred to a certification of an Islamic Cleansing ritual. It reveals that only some vessels, on which the charterers were concerned with a Halal certification, obtained this, and this can be considered as a challenge for some Muslim seafarers to work on board ships.

Food is essential to ensure the seafarers happiness on board. Nutritious and high-quality ingredients provided on board can ensure the level of happiness for seafarers to work (The Mission to Seafarers, 2019). In the context of Malaysian Muslim seafarers, the accessibility to Halal food on board is important for them. The Muslims cannot simply eat the non-Halal food prepared for them on board. This situation can be a demotivation for some of the Muslim seafarers to keep working on board the vessel for a long period. It can probably be a factor in seafarers' retention.

[4] Halal is Arabic for permissible. Halal food is that which adheres to Islamic law, as defined in the Al-Quran. This including the foods and beverages.
[5] Jabatan Kemajuan Islam Malaysia (JAKIM), Jabatan Agama Islam Negeri (JAIN) or Majlis Agama Islam Negeri (MAIN).

Chapter 5: METIs role in Malaysia

In the previous chapter, the roles of METIs were discussed in general, and to date, the number of METIs approved and accredited by MARDEPT keep increasing to 36. To understand better on the significant role METIs play in training qualified seafarers, a survey questionnaire was sent to ten approved METIs. Only five METIs provided their feedback. From five METIs, three of them offer the programme at diploma level and the other two offer the preparatory and modular course according to the STCW Convention.

5.1 METIs appointed by shipping companies to train seafarers

From five METIs participating in the survey, only two METIs are in cooperation with shipping companies in Malaysia to train seafarers. This approach will increase the chances of employment to the students after they graduate from their training centre. The training providers and ship owners should establish the cooperation or memorandum of understanding (MoU) to ensure the supply and demand can be met, and this will strategically reduce the dependency on foreign seafarers by the shipping companies.

5.2 Gender distribution at METIs in Malaysia

In this survey, only data provided by 3 METIs were analysed because of the programme they offer to the student at diploma level while the other 2 METIs only offered for modular courses. Figure 10 shows a high concentration of the female

participation in marine engineering with 94% compared to the female students in nautical studies with only 6%. Based on the data of student admission, it shows that female students are more attracted to choose the marine engineering programme as their subject. The explanation to the increasing number of female students in marine engineering is because one of the METIs participated in the survey only offer the engineering program. So, the number of female students in that METI provides a big gap between female admission in marine engineering and nautical studies. However, male students prefer to choose nautical studies rather than an engineering course. 82% of the male students choose the nautical course compared to marine engineering with 18% of the male students.

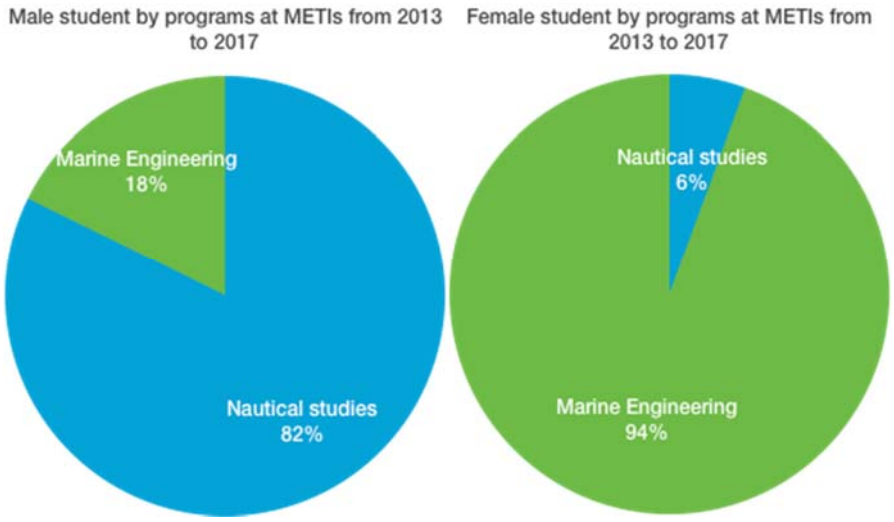


Figure 10: Student admission in 3 METIs (2013 - 2017).

Source: Author

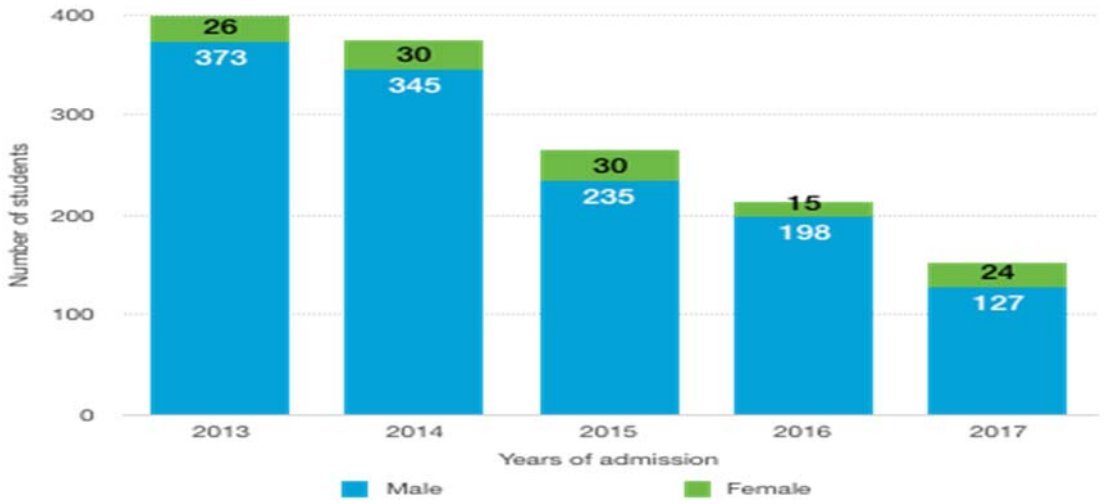


Figure 11: The trend of male and female students' admission in 3 METIs (2013-2017)

Source: Author

Figure 11 shows that the trend of male and females' student's admission in 3 METIs from 2013 to 2017 is decreasing for males and the number of admissions for females has not changed much. There is a considerable difference in the number of admissions between both genders. Since 2013 the total number of female students admitted to these three METIs is 26 persons. In 2014 and 2015, the METIs involved recruited 30 females. This number, however, decreased to 15 students in 2016 but in 2017 the number is increasing again to 24 students.

According to METIs involved, the main reason for the decrease of male students in METIs is due to the study loan PTPTN which has been reduced for private education institutions. Therefore, it affects the number of student admission to their academy. For information, the demand for a diploma in nautical studies is higher than a diploma in marine engineering because of the following two factors: First, the duration for a diploma in nautical studies is two years and six months compared to a diploma in marine engineering, which three years and six months. The nautical studies program is shorter than the marine engineering course. Secondly, the total cost for studying in the diploma nautical studies is cheaper than a diploma in marine engineering; the cost

would be RM 19,100 or USD 4,575.30 for nautical studies and RM 25,900 or USD 6,204.69 for marine engineering[6].

5.3 How does METIs attract female students

From the statistic above, it indicates that there is a decreasing number of female student enrolment at three METIs participating in this survey for the period of 2013 to 2017. This alarming situation is higher for female students in the diploma of nautical studies compared to student enrolment in the diploma of marine engineering studies.

The career roadshow, advertising and going to school to promote their academy is the main feedback received from the METIs on how they do to attract female students to study at their academy. The METIs also provide a study loan for all students who wish to continue their studies in the maritime sector. The *"Perbadanan Tabung Pendidikan Tinggi Nasional"* or PTPTN is the major financial aid that has been offered by most of academic institutions in Malaysia and the sponsorship from shipping companies. However, there is significant reduction in the PTPTN funding for private education institutions, as discussed in chapter 5.2.

Despite all the arrangements made by these METIs, the number of female students enrolled is still at a lower percentage. It will be examined and discovered from the female students' perspective how they know about the METIs and what is the factors that encourages them to continue their studies in seafaring.

[6] METIs senior registrar through a personal communication, July 23, 2019

Chapter 6: Female students' perspective

This chapter will discuss the results from the survey carried out amongst female students at METIs in Malaysia. This survey intended to find out the motivations and the challenge faced by them during their studies. The survey has been conducted through an online questionnaire and submitted to the female student at METIs. A total of 50 female respondents has participated in this survey.

The survey aims to understand the experiences and perspectives of female students during their studies at METIs. Apart from the experiences, the factors that encourage and discourage them when they choose seafaring as a career will be discussed. To understand these factors, the feedback from the female students is essential. The results from the survey are explained in the following.

6.1 Age profiling for female students at METIs

All METIs in Malaysia have the specific age criteria for the student enrolment in their institutions. Usually, students after secondary school will apply for higher education (i.e., college, university or academy) including METIs. The student will finish their secondary school at the age of 18 with the Malaysian Certificate of Education or *"Sijil Pelajaran Malaysia"* (SPM). After the SPM, results are open, so they will start their application for a further study either at public university, college, polytechnic or other institution like METIs.

Figure 12 shows the age distribution of female MET students who participated in the survey. The survey was distributed to female students at METIs such as ALAM,

RANACO, UMT and UNIKL MIMET. Fifty female students participated in the survey, and their average age was 24.42 years old.

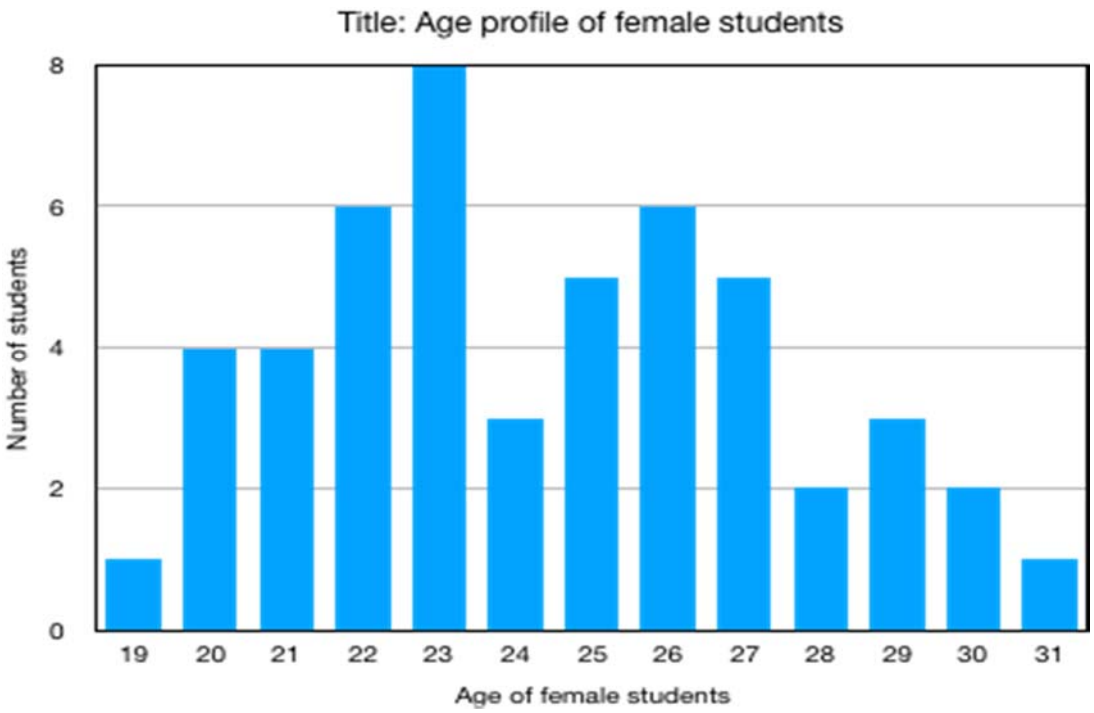


Figure 12: Age profile of female students at METIs

Source: Author

6.2 Female students' racial and religious profile at METIs

The survey included questions related to race and religion of female MET students with a particular interest in Muslim seafarers. Figure 13 shows the result from the feedback given by female students regarding their race and religion. From 50 respondents, (88%; n=44) of the female students at METIs are Malays, followed by Chinese with (6%; n=3), Indian (2%; n=1), Melanau (2%; n=1) and Dayak (2%; n=1).

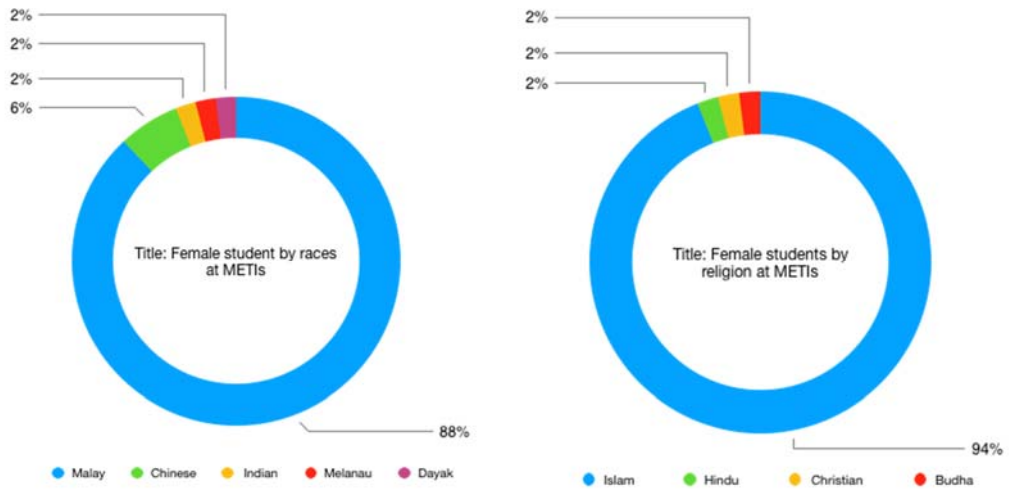


Figure 13: Female students races and religious composition at METIs

Source: Author

The majority of female students pursuing their studies at METIs are Muslim (94%; n=47). Muslim respondents in the survey comprise of Malays, Chinese and Melanau, this followed by Hindu, Christian and Buddha by 2% or 1 student per each religion. From Figure 13, it can be concluded that Muslim students are the majority group pursuing their studies in seafaring at METIs and in the composition of the race, Malay students are the dominant group in Malaysian METIs to pursue a seafaring career.

6.3 Which program attract more female students

From the 50 respondents participating in the survey, there were 48 validate answers from female students to the question to which program they enrolled at METIs. Fifty-four percent of the female students (n=26) chose the nautical studies program while 38% (n=18) marine engineering and 8% (n=4) marine electronics, which leads to Electro-Technical Officer (ETO) on board (see Figure 14).

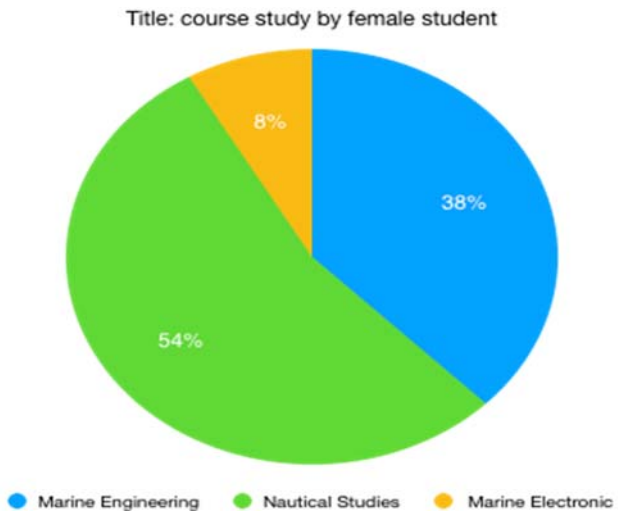


Figure 14: Course specialized by female students

Source: Author

Based on Figure 14, female students are more attracted to the nautical study program compared to marine engineering and marine electronics. However, if we separate them base on the department onboard deck and engine, the female student composition nearly same for deck and engine.

6.4 Female students in Malaysian METIs

The survey question has been expanded in more depth to know: (i) who encourage them to pursue their studies in seafaring; (ii) how they know about the METIs; (iii) how supportive or unsupportive their families were when they choose seafaring as a career and apart from these questions (iv) their experiences during their studies at METIs such as harassment and bullying encounter by them.

To understand who encouraged them to study at METIs in the seafaring course, 31 students answered the family is the main encouragement for them to study in seafaring. Family play a significant role in encouraging their daughter to pursue a seafaring career. This situation is a positive feedback, and the author believes that many families in Malaysia are aware of the seafaring prospect as a stable career for

their daughters. In addition to family, the self-encouragement is the second-largest percentage from the feedback with a total of 10 students, followed by teachers four students and friends three students. One student gives the answer they got encouragement from media and one student answered nobody encouraged her to study in seafaring (see Figure 15).

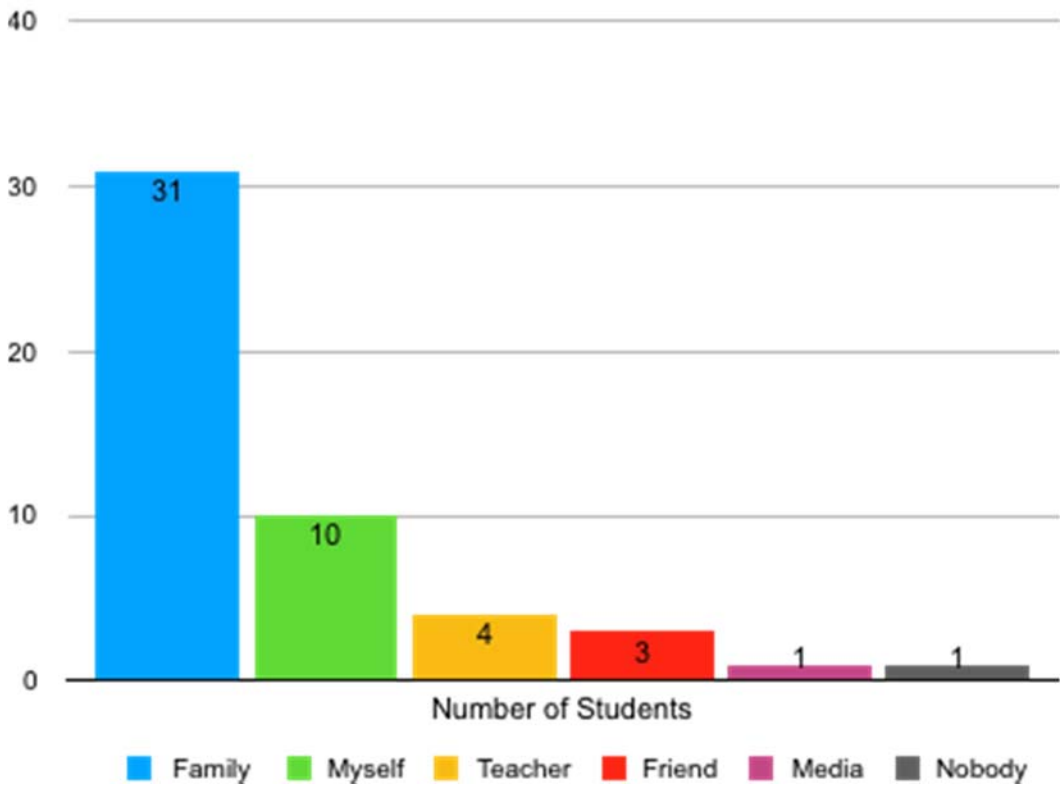


Figure 15: The encouragement factors for female students to pursue seafaring studies.

Source: Author

Figure 16 illustrates the result of how female students know about their METIs. Most of the female students learned about the METIs from a career fair, friend, family and advertisement in the newspaper. Based on the survey results, 17 students learned about their METIs is from a career fair they attended. Learning about METIs from a friend has been answered by 12 students. Eight students knew about their institution from an advertisement in the newspaper whereas seven students were informed by

their families. Further, two students responded they know about their METIs from the previous school, two students knew from social media and one student knew about the academy during her diploma study in a previous university.

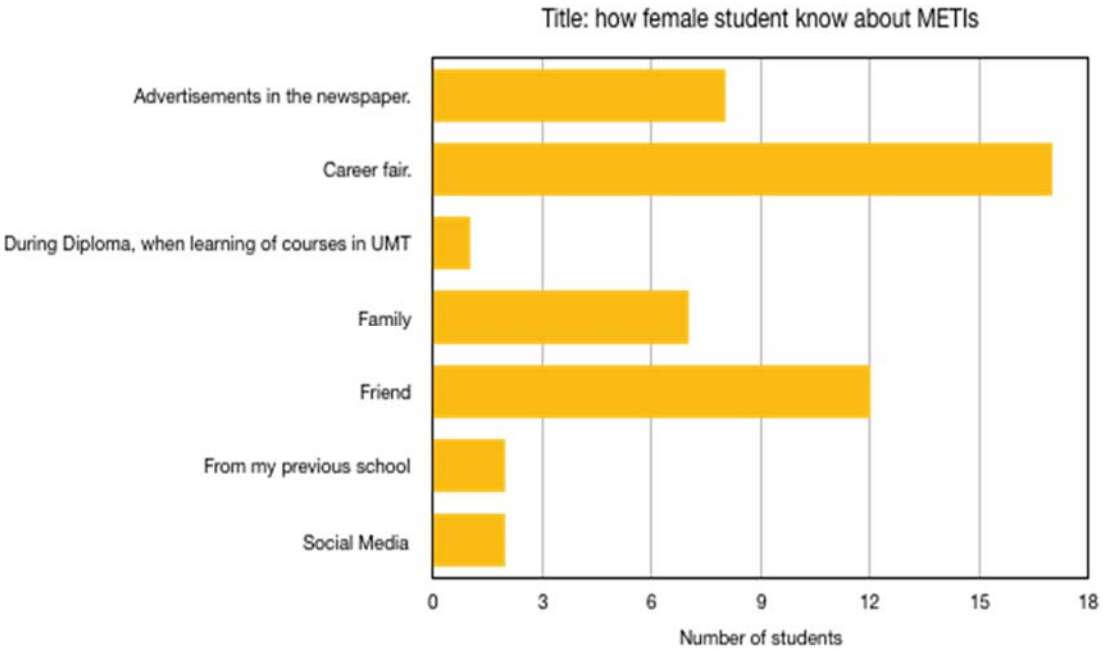


Figure 16: How female student know about METIs.

Source: Author

The medium such as social media and school can be fully utilized by METIs to promote the seafaring program and attracting more students, especially females, to join their academy. Today, everyone owns a smartphone, and social media accounts such as Facebook, Twitter and Instagram and this social media platform can be used to attract more students through promotion and advertisement about the maritime academy. From the school perspective, the teacher should develop more programs like career talk focusing on maritime and seafaring. In addition, the school program should incorporate study visits to the maritime academy as a foundation to increase the knowledge and interest of the student in a maritime career prospect.

The family support for women to choose seafarer as a career is very important in motivating them. Involved in a male-dominated job and working abroad with strangers

is very challenging, especially for females. The nature of the work environment as a seafarer will also give the family concern about their daughter's safety. The support from the family is important for a female student to choose the seafaring as her career. From 50 respondents, only 49 female students gave their answer on how supportive or unsupportive their family members were on the career they choose. 87.8% of the students answered that they received support from their families to work as seafarers while 12.2% did not. The level of family support varies among female students. Some students responded at the beginning their family was not supportive of their choice of becoming a seafarer: however, in the end, they started to show support for their daughter.

Bullying and harassment during study and work are another concern in all sectors. Female students at METIs are likely to become a target of bullying and harassment by their colleagues, either male or female because of the attitude and behaviour of certain male and female students (i.e., looking down on female ability, discrimination and demotivation and being a senior student can also be a cause for them to bullying). Bullying and harassment are commonly discussed in a great deal of literature on female student in seafaring education. This is also the case in Malaysian METIs. Out of 50 respondents, 30% (n=15) reported their experience of being victims of bullying and harassment while 70% (n=35) did not. Fourteen of the female students (93.33%) had an experienced being bullied by males, while one of the students (6.66%) became a victim to another female.

Bullying and harassment received by female students were taken in the forms of sexual harassment, body shaming, mental torture, verbal harassment and demotivation. Demotivation is the main type of bullying encountered by female students. Five students (33%) of them give feedback on demotivation. For example, the respondents mentioned that male students always underestimate female students, and they encouraged females to quit from the academy. Twenty percent of the female student reported that they faced the problem with body shaming and 20% of them encountered verbal harassment. Furthermore, two females (13%) become victims to sexual harassment like dirty talk, physical touching and sexual jokes by male students and two of them faced mental torture problems. Figure 17 shows the

types of bullying and harassment experienced by female students during their studies at METIs.

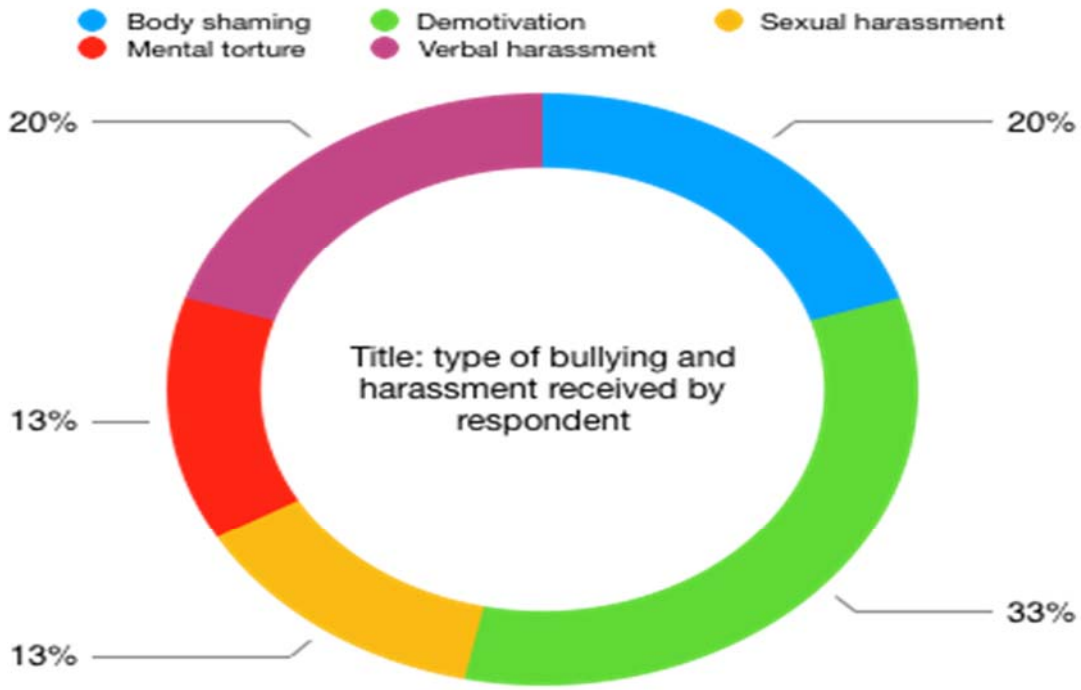


Figure 17: Types of bullying and harassment received by the respondent

Source: Author

From the data collected, it can be seen that bullying and harassment problems occur while they study at METIs. Most of the perpetrators are male students. This suggests that unethical behaviour from male to female students in METs will be possibly carried over onboard and indeed the female seafarers will become their easy victims.

6.5 Driving factors for female students to choose seafaring as career

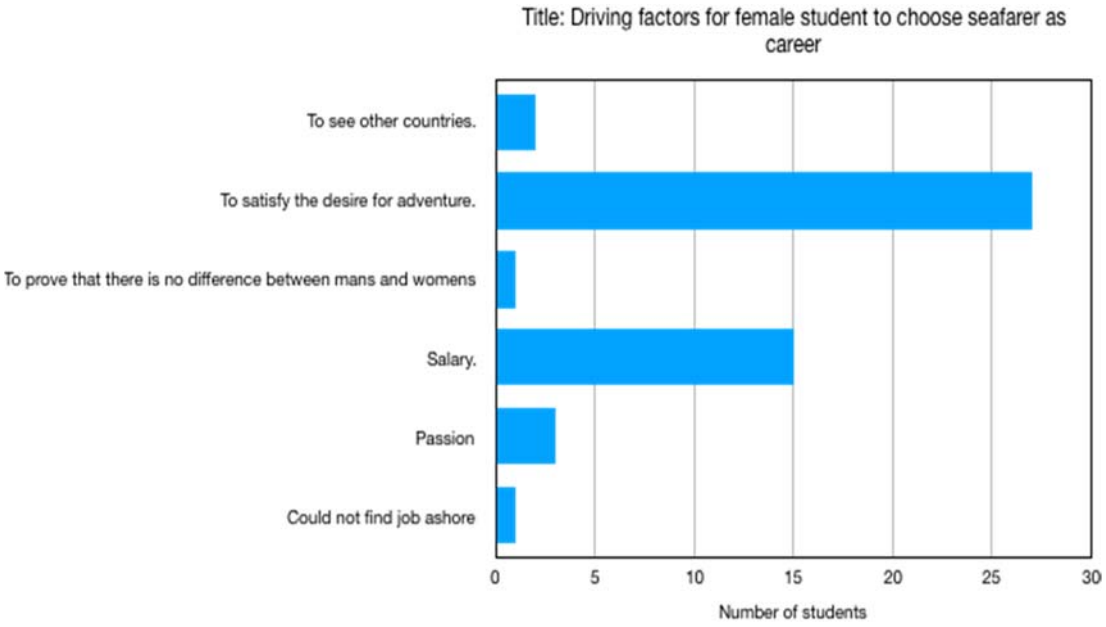


Figure 18: The driving factors for a female student to choose seafarer as a career.

Source: Author

In this section, the driving factors for the female students to choose seafaring as their career will be evaluated. Figure 18 reveals that the main driving factor for 27 female students to choose seafaring careers was because they wanted to satisfy the desire for adventure. Further, 15 female students choose the salary as their driving factors. In addition, the passion for sea life also became a driving factor for three female students, while two students choose the reason to see other countries as their driving factors. Also, one student stated that she could not find a job ashore, and the other wanted to prove that there is no difference between men and women.

Chapter 7: Female seafarers' experiences

The previous chapter discussed not only the feedback from the shipping companies regarding their practice and policy in terms of female seafarer employment within their organization, but also how the METIs attract the students to enrol in their academies and which seafaring course have higher concentration of females. In addition, the feedback from female students at METIs was discussed, such as discrimination, bullying, harassment and the motivation factors for female students to pursue a seafaring career.

In this chapter, the feedback from 32 Malaysian female seafarers will be discussed regarding their experiences, such as the challenges and driving factors for them to choose seafaring as a career. Besides, the company support for them is also an essential factor for their retention in the industry, so this will be examined. The experience from the perspective of being a Muslim female seafarer will also be considered.

The total number of respondents who participated in this survey is includes active and non-active seafarers. The experienced during their sailing is important for this study to understand what the challenges and motivation are for them to choose seafaring as their career.

7.1 Female seafarers on board

The composition of female seafarers working onboard according to the deck, engine and catering departments is illustrated in Figure 19. The percentage for female seafarers working on deck department was 72% (n=23) while female working in the engine department 25% (n=8). In addition, one female worked in the catering department.

The deck department is more attractive to female seafarers compared to the engine department on board. This situation may be due to the fact that the marine engineers are seen as heavy, dirty, sweaty and require physical strength and considered to be a male job as what commonly related to STEM.

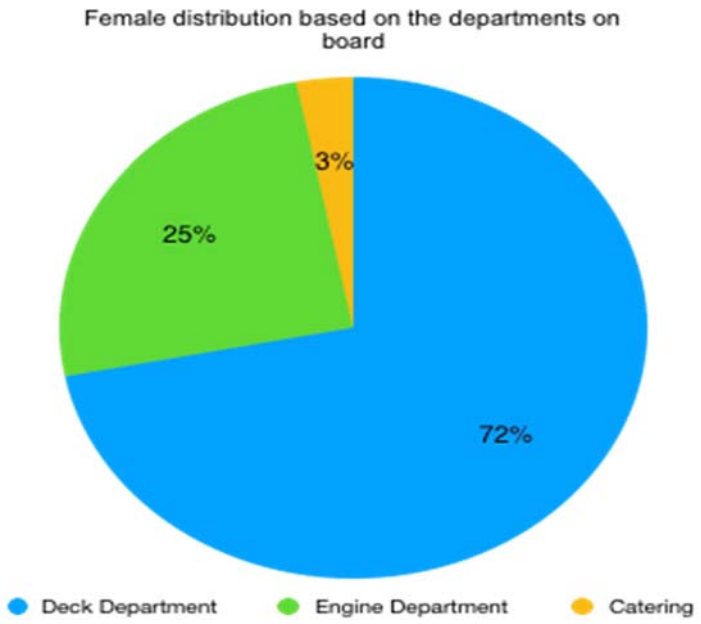


Figure 19: Female seafarer distribution based on the departments on board.

Source: Author

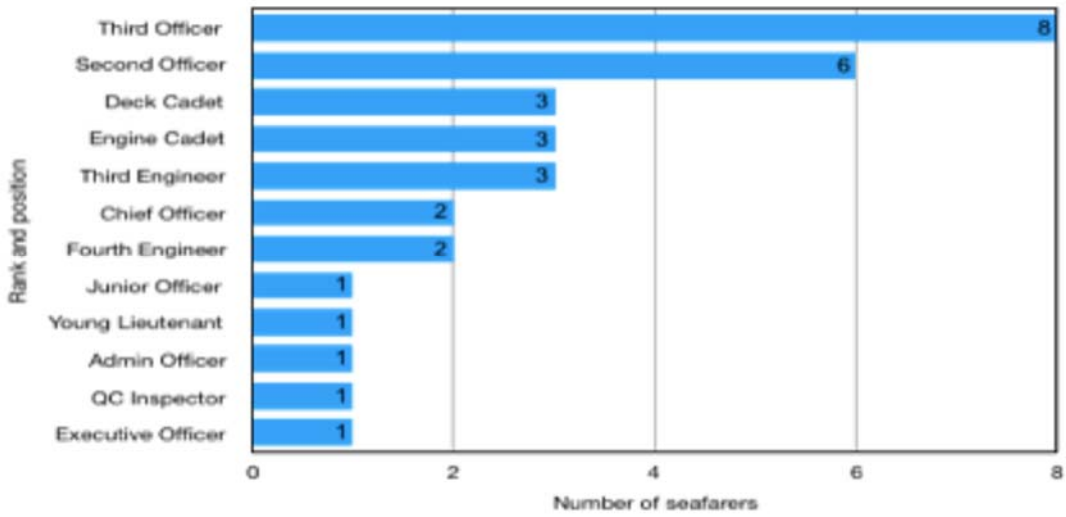


Figure 20: Number of female seafarers based on rank (active and non-active).

Source: Author

From 32 respondents, there is no female officer in the rank of Master or chief engineer. The majority rank of female seafarers participating in the survey is the third officer with a total of 8 persons followed with six females with the rank of the second officer. Furthermore, there were only two female chief officers and three third engineers as shown in Figure 20. The total respondents included active seafarers and seafarers who already left seafaring and are working onshore. From the feedback, 3 respondents already quit the seafaring life. In Malaysia, there are still no female seafarers who have attained the master's rank, and this could be related to their retention rate.

The mean age for female seafarers involved in this survey is 27.7 years old. The youngest female seafarer is aged 22, and the oldest is 38 years old. The youngest female seafarers are in the position engine cadet while the oldest holds the position of third officer and executive officer on board (see Figure 21).

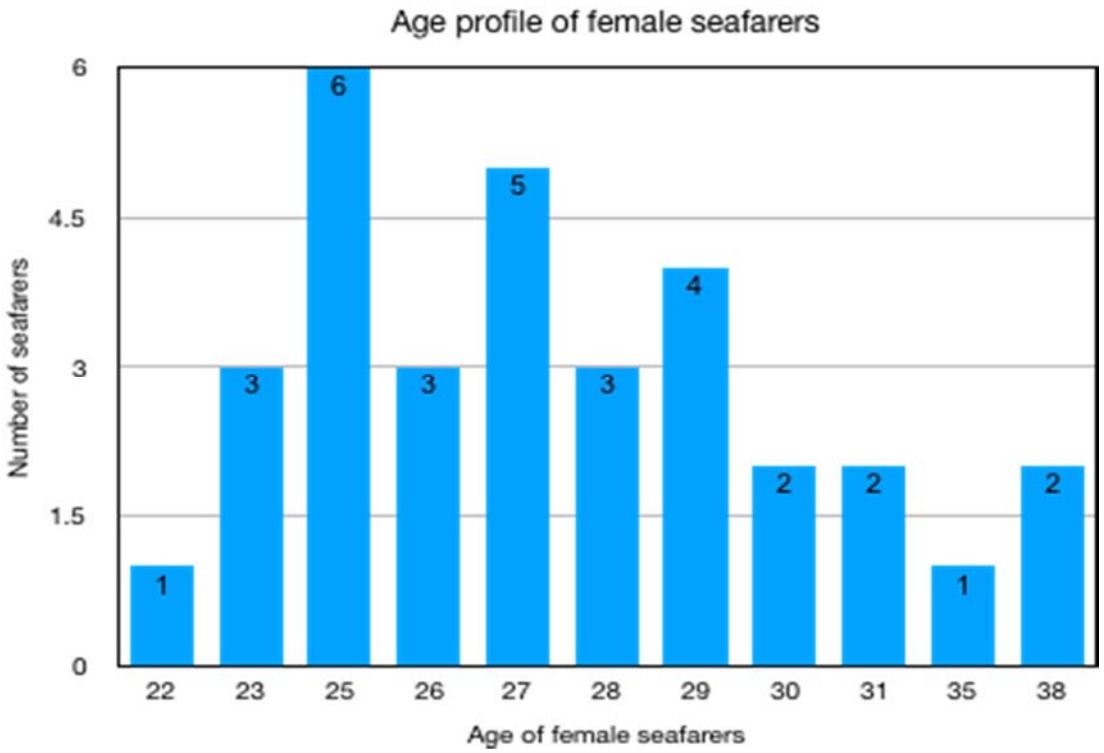


Figure 21: Age profile for female seafarers

Source: Author

The races and religious elements are one of the focuses of this study. Through the data collected, Malay female seafarers were the majority (72%; n=23) in this survey. Further, Indian female seafarers involved in the survey are three persons with a total percentage of 9%, followed by the two Dusun[7] female seafarer who gave feedback with the percentage of 6%. The other races were Chinese, Iban[8], Lun Bawang[9] and Punjabi with a total of one female seafarer for each race. If going into further details, the religious composition according to the female races, Muslim seafarers are the female majority working on board (81%; n=26) while Christian seafarers make up to the total composition of 9% with 3 seafarers and seafarers with Buddhist and Hindu as their religion are comprise of one seafarer (3%). One respondent answered no religion.

[7] Bumiputera ethnic from Sabah.
[8] Bumiputera ethnic from Sarawak.
[9] Bumiputera ethnic from Sarawak.

The marital status of the female seafarers was identified during the survey. Female with a single status was the majority (66%; n=21) while those who are married were ten (31%) and those who are engaged was one (3%).

Regarding their family reaction when they choose seafaring as a career in the first place, 66% of the female seafarers gave the response that they received adequate support from their families while 28% of them gave the feedback their families did not support their decision to become a seafarer. The rest of the seafarers mention their families had a mixed reaction when they learned about their decision to become a seafarer[10].

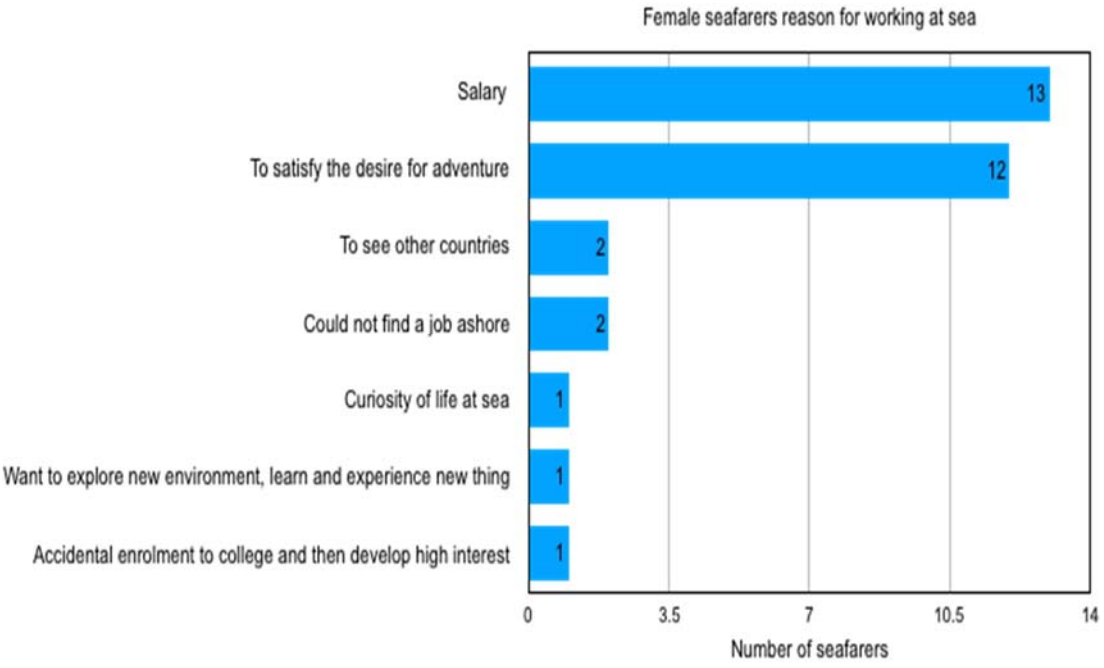


Figure 22: Female seafarers' reason for working at sea

Source: Author

Females are motivated to choose seafaring as their life career because of the lucrative salary offered by this industry and the factor to satisfy their desire for adventure, as shown in Figure 22. Twenty-five female seafarers mentioned that these

[10] Refer to Appendix B.

factors drove them. Two females were motivated by seeing other countries and two females chose a seafaring career because they could not find job ashore. The other reasons included the curiosity of life at sea, wish to explore a new environment, a desire to learn and experience new things, and accidental enrolment to college and eventually developed a high interest in the seafaring.

7.2 Challenges facing by the female seafarer

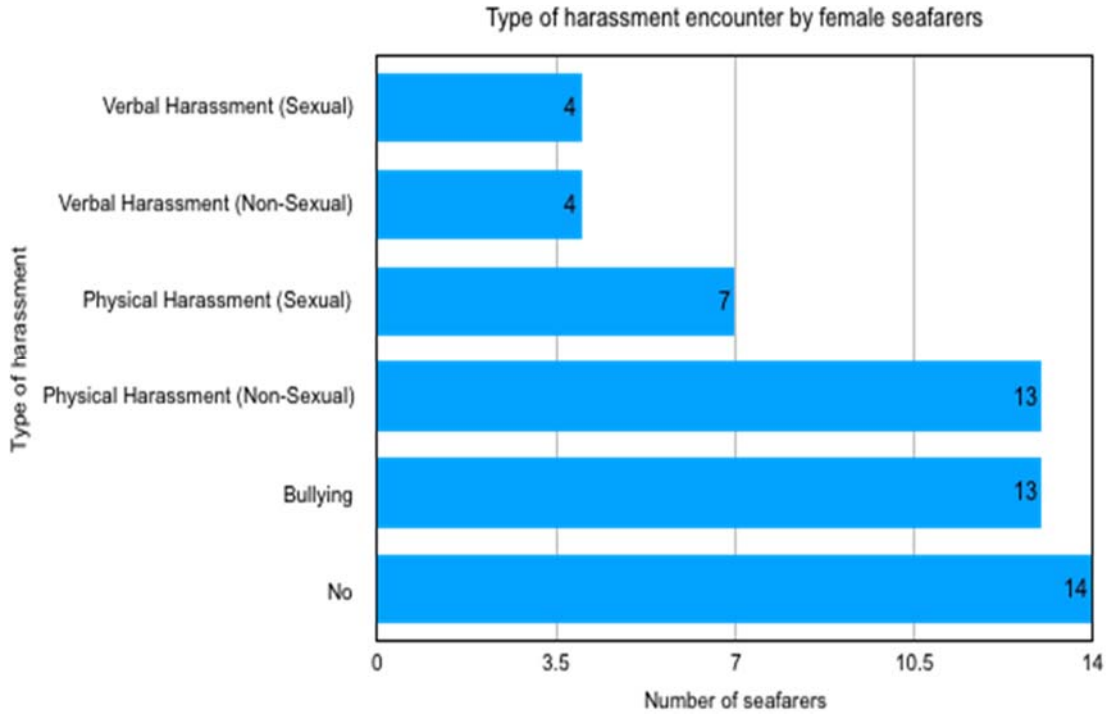


Figure 23: Types of harassment encounter by female seafarers on board

Source: Author

Females working onboard as a seafarer will encounter problems to cope with the conditions and working culture onboard where men are dominant. The bullying and harassment problems, against female seafarers have already been discussed in many literature reviews related to female seafarers. In the context of Malaysian

female seafarers, they also encounter the same problem. From the sample involved in this survey, they reported that they encountered more than one type of harassment during their careers. This fact is proven when 18 female seafarers out of 32 respondents provided their answer that they have encountered the problem of harassment either verbal (sexual and non-sexual), physical (sexual and non-sexual) and bullying as shown in Figure 23. Seven females encountered sexual harassment physically on board.

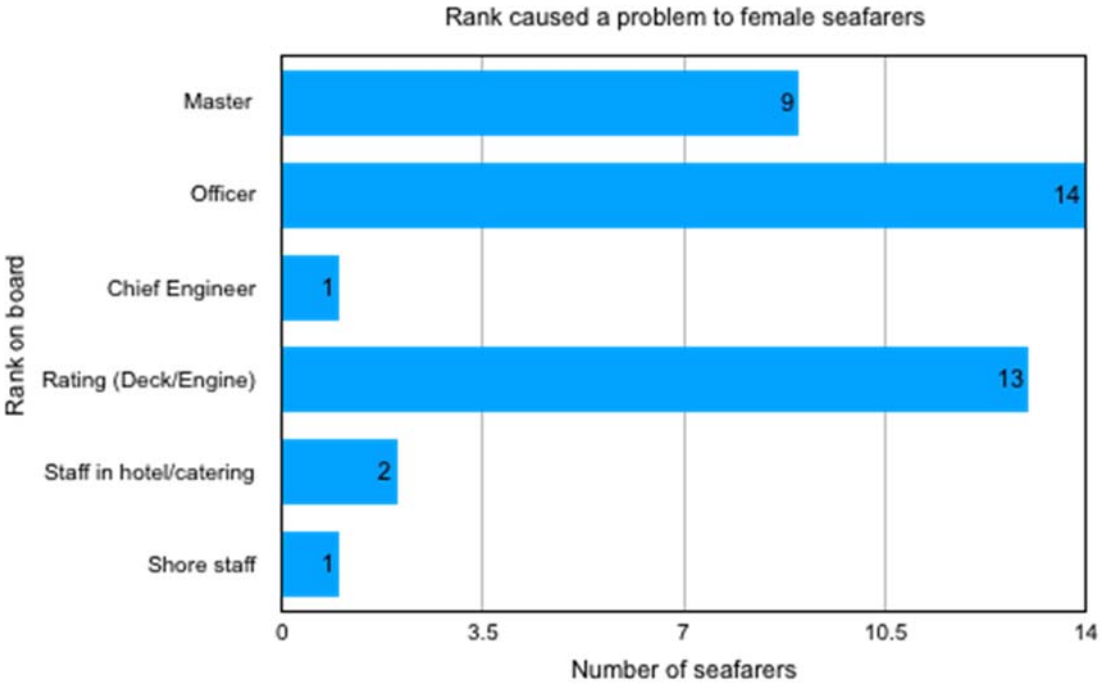


Figure 24: Ranks caused a problem to female seafarers

Source: Author

The investigation is going further in order to know which ranks have caused problems to these female seafarers. The result is alarming when the officer ranks are the main cause for the problem encountered by female seafarers on board. Nine female seafarers reported that they experienced the problem with the master, while 14 females said they got the problem from the officer and one from the chief engineer. Some ratings also caused problems with female seafarers as disclosed by 13 female seafarers (see Figure 24). From these statistics, the crew with the top rank are more frequently committing the wrongful acts toward female seafarers. It is possible to

assume that ship hierarchy places a structure which makes juniors vulnerable and this may create an opportunity for senior male seafarers to take advantage of women seafarers.

Ten of the female seafarers revealed that Malaysian male seafarers caused the problem to them, while 7 of them encountered the problem with foreign seafarers and 8 of them were bullied and harassed by both Malaysian and foreigner crews[11].

To this common problem related to their gender, how do they cope with bullying and harassment? The percentage of female seafarers choose to share their problems with others accounted for 74% whereas 26% choose to keep the problems to themselves. To overcome the problems, female seafarers usually get support from their colleagues (34%), share the problem with their family (17%), report to their manager (9%) and report the problem to the captain (7%). In addition, the respondents also answered that they would share their problems with another female officer.

Some of the female seafarers made a complaint to the company or their superior regarding the colleague's behaviour onboard; however, the level of satisfaction on how the company or their superior handled their report is not up to the level where 22 of them disclosed they were sometimes happy with the case handled and 6 female seafarers never happy with that. Only three female seafarers were happy with the action taken by the companies.

Although female seafarers facing the challenges and problems when working onboard, 20 of them would encourage another female to be involved in the seafaring career while 12 of them would not encourage others to do so[12].

[11] Refer to Appendix C.
[12] Refer to Appendix C.

7.3 Company support for female seafarers

In this section, the company support toward female seafarers will be discussed, including the equal opportunity policy and sexual harassment policy[13]. Seventeen female seafarers (53.1%) disclosed that their companies have equal opportunity policy and 86.3% or 26 female seafarers mentioned their company have a sexual harassment policy. Seven female seafarers (21.9%) mention their company did not have equal opportunity policy and two seafarers or 6.3% of them revealed their company did not have a sexual harassment policy. Eight female seafarers (25%) did not know whether their company had equal opportunity or not, and 12.5% or 4 of them did not know whether their company had a sexual harassment policy or not. From the 26 females who answered their company had a policy regarding sexual harassment, only 11 received the training on how to deal with the sexual harassment while 11 of them had not received any training and 4 of them answered they did not know. From the female feedback, although the company has a policy regarding sexual harassment, it never reaches to the female seafarers as revealed by 15 of them.

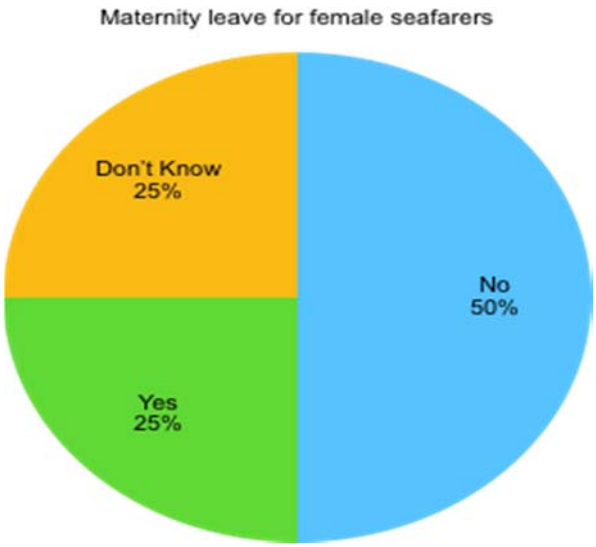


Figure 25: Maternity leave for female seafarers

Source: Author

[13] Refer to Appendix D.

Company support regarding maternity leave for female seafarers is considered to be essential to promote female seafarers. However, when they become pregnant, the company usually do not provide a maternity leave for them. This situation will make it difficult for them to stay on their career unless women find their own solutions about the child. Maternity is reported as one of the factors that lead shipping companies to consider women as a labour force of limited time (Theotokas & Tsalichi, 2013). This problem can also be seen in the employment of female seafarers in Malaysia where 50% of the respondents mentioned that their companies did not provide maternity leave for them. Only 25% of the female seafarers answered that their company did provide maternity leave and another 25% did not know whether their company provided such maternity leave for women as indicated in Figure 25.

On the other hand, in the context of company benefits and salaries, they were asked about the question whether their company allowed their husband or partner to sail together. The majority of them gave positive feedback even though some of them did not get the chance to bring their spouses to sail together. In terms of salaries, 24 out of 32 respondents answered that they had been paid at the same rate as males with the same rank as them.

Above all, the females in the Malaysian maritime industry have a positive attitude in terms of their chances for promotion. Sixteen of the respondents answered their chances of promotion were the same as their male colleagues. Among the reason they gave was because of the equality policy and the promotion were based on skills and performance, not gender[14].

As precautionary measure or for their safety, many companies forbid female seafarers from entering the male accommodation area and vice versa. 22 out of 32 respondents provided the answer that they were not allowed to access the male accommodation area.

[14] Refer to Appendix D.

7.4 Female career prospects

When the female seafarers were asked how long they would be working at sea, 29 female seafarers gave their response. Family and marriage are one of the factors that will influence the female seafarer career path. From the feedback, only one female seafarer answer she would be working at sea forever whereas the other answers provided by the respondents were such as long as she able to worked at sea; as long as she still single; until she gets pregnant, and as long as the passion did not burn out. Additionally, few of them are currently waiting for shore-based working opportunities before quitting the seafaring life, and the other females mentioned they would work at sea until they obtained their certificate of competency. A small group of respondents answered that they would be working at sea less than 10 years and some of them have already quitted[15].

Another attribute for them to stay longer onboard was the level of acceptance of the males toward them. Generally, the level of male acceptance of them working on board is positive with most of the respondents giving the answer that the males accepted them to work together whereas a small number of respondents said males had negative acceptance toward them. For example, the male attitude toward females is condemning, underestimating, sexist and chauvinistic and not encouraging. In addition to that, some of the males have mixed feelings on the acceptance of females on board.

7.5 Perspective from Muslim female seafarers

Muslim female seafarers undoubtedly are the majority group that served in the shipping industry in Malaysia, among other religions such as Christianity, Buddhism, and Hinduism as already discussed in chapter 7.1. This section discusses Muslim female seafarers' feelings from the perspective of Muslims such as halal and haram (Islamic rules), their association as Muslim women when working with male strangers on board and whether being a Muslim female seafarer is challenging for them.

[15] Refer to Appendix E.

The companies are responsible for supplying food and drink for daily usage for every person on board, for example meat, chicken and other ingredients for cooking. If the companies do not supply halal meat and halal ingredients onboard, it could be difficult for Muslims to eat that food as it against Islamic rules regarding the halal food. Twenty-six of the Muslim female seafarers have given their answer that their company supplied halal food on board.

Then, the respondents were asked about the preparation and segregation of halal and non-halal food if any onboard. As a result, 17 of them revealed that all food onboard was Halal and 3 of them said the chief cook would segregate the non-halal food by labelling the food when serving, and as for the preparation of the food, they were not very sure. Another answer was that non-halal food was not cooked in the same dishes and was well segregated. Even though the company supplied halal food onboard, there is still non-halal food which would be supplied together for other consumption. The issues here is how this food has been prepared and cooked because there is only one kitchen and of course the chief cook will prepare the food in the same kitchenware.

So, the Muslim female seafarers were asked about their feelings when their food was prepared with non-halal ingredients. Thus, three respondents expressed their concern that situation would be bad for them as Muslims while two respondents gave the answer that they did not care about the situation. Some of the respondents mentioned for survived onboard, she needed to tolerate with the situation, and this was not an issue when they were onboard even though they were upset.

In another perspective of Muslim female seafarers, privacy is also essential for them. This especially when it has come to the sharing facilities with males such as toilets and bathrooms on board. Twenty-two of respondents gave the answer that they felt uncomfortable when they had to share bathroom facilities and toilets with men, whereas 4 of them have no problem sharing the facilities.

The question regarding whether the Muslim respondents cared about halal and haram when they were working onboard was asked. As a result, 16 of 26 Muslims disclosed

that they cared about Islamic religious rules in relation to halal and haram when they were on board while 10 of them did not care much about this. The reason for them to say they do not care is mainly due to their faith as a Muslim would not be affected as the forbidden (haram or non-halal) will be stay forbid except in the emergency conditions. In another explanation they gave, as a Muslim woman, they needed to protect their dignity from all aspects such as how they should associate, communicate so others would respect her as a woman on board and they should know what the limit was when working with another gender especially about their awrah[16].

From the survey feedback received, 12 of the Muslim females said being a Muslim female seafarer was not challenging for them. Meanwhile, 9 of them are admitted that it was very challenging, and another one female said sometimes she felt challenged. Nine of the respondents answered that being a Muslim seafarer was challenging due to the lack of a cabin intended for one person or at least segregated between male and female only. Another reason why being a Muslim female seafarer is challenging was because the demotivation they received from male colleagues such as saying they did not follow and complying with Syariah law as they were working away from home with men who were not their Mahram[17]. As a faithful Muslim, the call for prayer is mandatory, and they need to pray for five times a day; however, when the working schedule onboard is tight it is not easy for them to comply with this, so they were also concerned about their awrah when they were working onboard[18].

[16] The Arabic word awrah refers to the parts of the body which must be covered with clothing. Awrah is any part of the body, for both men and women which may not be visible to the public. Awrah is interpreted differently depending upon the sex. For woman the rules are complicated.
[17] A mahram is unmarriageable kin with whom marriage or sexual intercourse would be considered haram (Illegal in Islam).
[18] Refer to appendix F.

Chapter 8: Discussion and recommendations

In this chapter, challenges and good practices will be discussed, including support from the company in the relation of employment of women seafarers in Malaysia and another important entity in the seafaring industry which is the role played by METIs in recruiting more female students to meet the demand from the labour market. This chapter also intend to answer all the research questions that have been developed in chapter 1.6.

Firstly, the challenges faced by women seafarers in Malaysia during their sea career will be reviewed. Based on the feedback and data analysis, the female seafarers in Malaysia often faced the problem of discrimination and demotivation from male crews. This discourages female seafarers to continue to work at sea. In addition, females on board are exposed to the bullying culture and sexual harassment, either verbal or physical. This fact has also been proven that female are prone to bullying, harassment and discrimination as exposed in the study by Yunus and Said (2016) and Zhao, et al., (2017).

What is more surprising, the perpetrator of these problems is a majority in the ranking of male officers including the Master himself. They abuse their power over female seafarers instead of protecting and encouraging these females to continue to advance themselves in seafaring careers. Another problem women are facing was regarding the maternity leave. Since many women, at least in the context of Malaysia, get married and plan to have a child, this issue is a dilemma for women to continue seafaring or to have a child because most of the shipping companies did not provide maternity leave. The solution for this dilemma is that they will stop sailing and end up

at shore so the retention of their career will be stopped and this is opposite with the other employment sectors such as government or private sectors ashore where women can get the maternity leave. Besides, the availability of separate bathroom and toilet facilities is critical as specified in MLC, 2006. In ensures comfort for women seafarers.

Secondly, from this survey, females are motivated to work as seafarers on board, mainly due to the salary. Indeed, seafaring is offering a lucrative reward for them in terms of salary and bonus. Thus, the economic empowerment aspect is the main force for females to choose a seafaring career even though they will be facing many difficulties in real life.

Thirdly, one of the focuses of this study is to understand how does the way of Muslim life possibly affect women seafarers in terms of their work and sea career. Generally, Muslim female seafarers tend to face challenges to work on board. From the survey, in addition to food preparations, which are the common concern regardless of gender, female-specific challenges are how they associate with male colleagues because as a Muslim female they should protect their awrah. Besides, male colleagues have a negative impression toward Muslim female seafarers if they do not follow the Syariah. Because of these factors, some of the Muslim females feel seafaring is very challenging for them.

Moreover, the survey attempted to identify what support is available from shipping companies in terms of female seafarers' employment and retention. Most of the shipping companies participated in the survey did not have a policy regarding women's employment and sexual harassment policy. Very few companies revealed that they have these policies implemented. Shipping companies in Malaysia are not too keen on employing female seafarers, and the reason for this phenomenon was not disclosed by them. They prefer to employ foreign seafarers to operate their ships. One assumption here is that they do not want any problems to occur on their vessels if their female seafarers on board are harassed or bullied, which will affect to their reputations. Hence, to prevent such problem, they may be choosing not to employ women on their vessels.

Lastly, only 3 METIs participated in this survey, so the overall statistics for female student recruitment by METIs in Malaysia cannot be determined. However, from these 3 METIs, the number of female students' enrolment to the academy is very low despite all the promotional programmes to attract female students. Another problem is regarding the study fees which also attribute to the decreasing number of student enrolment to the METIs. The PTPTN fund for the private academy has been reduced, and this situation affects the number of students' enrolment to METIs. Without the study fund, they were not able to pay the study fees because the cost for studies in seafaring is very expensive and after they graduate from the academy the chance for them to be employed by shipping companies is small.

To overcome the problem and increase the number of females in seafaring, all stakeholders need to take serious actions to this matter. The stakeholders such as Malaysian Government (Ministry of Transport, Ministry of Education, the Ministry of Human Resources), Maritime Education and Training Institution, shipping companies, seafarer associations and MyWIMA should take appropriate actions to this matter. Below are the recommendations that can be taken to empower Malaysian women in seafaring:

i) The Government of Malaysia should review the Malaysian Shipping Master Plan from 2017 to 2022. The focus on the producing of 20,000 seafarers should include the recruitment of female students in METIs as one of the elements to increase the number of female seafarers in Malaysia. This measure will be in line with the objective of IMO and UNSDG 5 to promote more females in the industry.

ii) The Maritime Education Blue Print should include the syllabus regarding the women's rights and sexual harassment education for both genders. From the survey, it seems that the bullying and harassment are occurring during their studies at METIs. The introduction of a new syllabus will create a sense of respect toward women and this will lead to the reduction of harassment, bullying and discrimination.

iii) The Government of Malaysia should consider giving an incentive or rebate to the shipping companies that employ more female seafarers in their fleet. The incentive could be tax relief that can be the encouragement factor for them to employ more female seafarers. The levy on foreign seafarers employed by local shipping companies should be gradually increased until the level of female seafarer employment is achieved by the industry. This recommendation is can also reduce cash flow rates by foreign seafarers.

iv) The PTPTN fund for education should not decrease either to a private or public maritime academy. The fund is to ensure that the student who wishes to pursue studies in the maritime field can get financial aid. If they do not get the financial aid, they cannot pay the study fees. Also, the establishment of a specific number of scholarships for the female students is a possible method to encourage more females to study in seafaring.

v) The establishment of a policy related to female seafarers' employment seemed to be the right path to increase their number in the industry. With the policy, the company should have an obligation to hire female seafarers in their organization. Further, the maternity policy and sexual harassment policy are essential to ensure female seafarer retention.

vi) The company should hire their crew based on the qualifications and not be based on gender. These practices could lead to discrimination upon female seafarers if gender has become a factor for a shipping company when employing their worker.

vii) The international bodies such as IMO and ILO should consider creating an award for those shipping companies who have employed more women on their fleet and company. This international award could be a source for encouragement for them to hiring more female seafarers within their fleets.

viii) Shipping companies in Malaysia should consider having a Halal certification onboard Malaysian ships as a Cooperate Social Responsibility (CSR) toward Muslim seafarers as most of the seafarers in the Malaysian market today are Muslim.

ix) The METIs should play an important role and increase their efforts to attract more female students to enrol in their academies. The incentive for female students could be introduced to increase the participation of female seafarers such as clear career pathway after their graduation and establishment of the link between shipping companies to supply the female seafarers. The METIs can also promote their students to shipping companies abroad.

Chapter 9: Conclusion

Women seafarers are under-utilized human resources in seafaring, which can strategically resolve the problem of world seafarer's shortage. The majority of the shipping companies and manning agencies in Malaysia hire foreign seafarers to operate their vessels. In this study, some of the problems female seafarers face were identified. The problems like bullying, gender discrimination, sexual harassment, the lack of policies relating to their employment and maternity leave are the main challenge faced by female seafarer in Malaysia today. Moreover, most of the female seafarers on the Malaysian fleet today are Muslim, and for them, the factors like their awrah, female-only facilities on board, and the halal food have become their primary concern when they are working on board.

Most of the shipping companies in Malaysia do not have the specific policy to encourage women in their fleet compared to those small number of the companies that already have a policy. To achieve gender equality in the Malaysian maritime sector, all stakeholders should work together, especially in developing a policy on the employment and retention of female seafarers.

As of 18 September 2019, the highest rank achieved by a female seafarer in Malaysia is only Chief Officer; as far as known, there is no Master among the female seafarers in Malaysia yet. Due to various obstacles related to work-life balance, most of the respondents participated in the survey mentioned that they would stop the seafaring career after a few years sailing. Shipping companies and the government should give attention to this matter on how to make them stay for a longer period in the industry. The support from the companies is essential for female seafarers' retention. There is

still a long journey for Malaysia to achieved gender equality in seafaring. Changes in policy and implementation of the policy are a priority in order to empower women seafarers in Malaysia.

Feedback received from the survey does not reflect the whole maritime industry in Malaysia, which is the limitation of this study, for example: i) The perspective from the Malaysian government, especially from the Ministry of Transport and the Marine Department of Malaysia, was not studied to avoid an ethical conflict of being an insider as the author is a government servant; and ii) The limited response rates from the METIs, shipping companies and female seafarers despite the author's follow-up through email and telephone hindered the holistic data collection about the maritime industry in Malaysia.

For future research, the focus related to government policies toward female seafarers should be considered as one of the angles in the method. The participation of government agencies such as the Marine Department of Malaysia, the Ministry of Education and the Ministry of Human Resource in empowering women should be taken into consideration. Furthermore, the study could include a larger sample of female seafarers, shipping companies and METIs in Malaysia and the seafarer's union in Malaysia.

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Appendices

Appendix A: Policies implementation within shipping companies

Shipping Company	Q7: Specific policy relating to the employment of female seafarers	Q8: Is your policy designed in terms of the employment female seafarer to encourage or to not encourage	Q9: What is the highest rank female seafarer can be appointed at your company	Q10: Are there any positions company would not employ female seafarer	Q11: Which posts shipping company would not employ female seafarer	Q12: Why shipping company would not employ female seafarers in that posts	Q13: Does shipping company have future plans to encourage the recruitment and retention of female seafarer	Q14: Does your company have a policy regarding sexual harassment	Q15: How many complaints by women seafarers received on 2018	Q16: What are the most frequent complaints by female seafarers	Q17: Halal certification from JAKIM for food preparation on board
A	No	N/A	Master	No	N/A	N/A	No	Yes	N/A	N/A	Yes
B	No	To not encourage	N/A	No	N/A	N/A	No	No	N/A	N/A	No
C	No	N/A	N/A	No	N/A	N/A	No	No	N/A	N/A	No
D	Yes	To encourage	Master / Chief Engineer	Yes	Rating	We prefer to train the female to become an officer/engineer	Yes	N/A	N/A	Sexual harassment by male crew onboard	No
E	No	N/A	Master / Chief Engineer	No	N/A	N/A	Yes	No	N/A	N/A	No
F	No	N/A	No restriction on the highest rank for a female seafarer in our company	No	N/A	N/A	No	No	N/A	In august 2017, we did received a complaint by female seafarer on sexual harassment and alcohol drink onboard	No
G	Yes	To not encourage	N/A	No	N/A	N/A	No	Yes	N/A	N/A	No
H	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
I	No	N/A	So far we don't have any female seafarer within our organisation/fleet	No	N/A	All this while we do not employ female seafarers	No	No	N/A	N/A	Yes
J	No	N/A	N/A	N/A	N/A	N/A	No	Yes	N/A	N/A	Yes
K	No	N/A	Officer	No	N/A	N/A	Yes	Yes	N/A	N/A	Yes
L	No	N/A	Depends on their qualification and experience, the company have no restriction in allocating the suitable ranks. Female crew are more interested in cruise ship operations. Very difficult to employ female crew for this dredging operations	No	N/A	N/A	Yes	Yes	N/A	N/A	Yes

M	No	N/A	Depends on their qualification and experience	No	N/A	N/A	Yes	No	N/A	N/A	Yes
N	No	N/A	Master / SDPO	No	N/A	N/A	Yes	Yes	N/A	N/A	Yes
O	No	N/A	From deck officer to full management staffs	Yes	Able Bodied	Because the nature of work needs physical strength and expose to danger ie piracy	Yes	Yes	N/A	N/A	No

Appendix B: Female seafarers' response

Q1 - In which department you are working on board?	Q2 - What is your rank on board?	Q3 -How long have you been working at sea?	Q4 - What is your age?	Q5 -Which of the following describes you the best?	Q6 - What is your religion?	Q7 - What is your current marital status?	Q8 - What is the main reason you work at sea?	Q9 - How is your family reaction when you choose seafarer as a career?
Deck department	Second Officer	4 years	26	Malay	Islam	Married	Salary.	Disagree
Deck department	Deck Cadet	7 months	27	Malay	Islam	Single	accidental enrolment to college and then developed high interest	supportive
Deck department	Qc inspector	5 years	30	Lun bawang	Christian	Single	To satisfy the desire for adventure.	Scared
Engine department	Engine cadet	3 months	23	Malay	Islam	Single	Salary.	My mom ask me to find another job on shore
Deck department	3rd officer	2 years	25	Malay	Islam	Single	To satisfy the desire for adventure.	Supportive
Engine department	Engine Cadet	1 year	22	Dusun	None	Single	I want to explore new environment, learn and experience new things	They support me.
Deck department	second officer	2years	25	Malay	Islam	Single	Could not find a job ashore.	okay
Deck department	Junior officer	2 years	23	Indian	Islam	Single	To satisfy the desire for adventure.	They proud of me.they never expect that I can stand until now
Deck department	Chief Officer	8 Years	29	Malay	Islam	Married	Curiousity of life at sea	Very Supportive
Deck department	Third Officer	6 years	31	Malay	Islam	Married	To see other countries.	Not agree
Deck department	2nd officer	9 years	29	Punjabi	Islam	Single	To satisfy the desire for adventure.	Positive and supportive
Catering	Admin Officer	12 years	35	Malay	Islam	Single	Salary.	Very supportive
Deck department	Third Officer	5 Years	28	Malay	Islam	Single	To satisfy the desire for adventure.	Alhamdulillah supporting me in everyway
Engine department	Third engineer	6 years	28	Indian	Islam	Married	To see other countries.	Supportive
Engine department	4th engineer	3 years 5 months	25	Indian	Hindu	Single	Salary.	Supportive n encourages.
Deck department	Chief officer	10 years	29	Chinese	Buddhist	Single	To satisfy the desire for adventure.	Supportive
Deck department	young lieutenant	6 months	27	Malay	Islam	Single	To satisfy the desire for adventure.	Not happy
Deck department	Third Officer	4 years	30	Malay	Islam	Single	Salary.	Supportive
Deck department	Executive officer	5 years	38	Malay	Islam	Married	To satisfy the desire for adventure.	Positive
Deck department	3rd officer	6 years	38	Malay	Islam	Married	To satisfy the desire for adventure.	Not happy

Deck department	second officer	2 years	26	Malay	Islam	Married	Could not find a job ashore.	they support my decision
Deck department	Second officer	6 year	25	Malay	Islam	Married	Salary.	Didn't support much
Engine department	3rd Engineer	2 years 7 months	25	Malay	Islam	Single	To satisfy the desire for adventure.	Agreed by my dad but my mom slightly unamused with the idea
Deck department	3rd Officer	2 years 5 months	27	Malay	Islam	Single	Salary.	Supportive
Engine department	3rd Engineer	10 years 7 months	31	Malay	Islam	Single	Salary.	Shocked at first but eventually they support me to the fullest
Deck department	3rd mate	3 years	26	Dusun	Christian	Engaged	Salary.	Mix feelings.some dont agree some dont understand
Engine department	4th engineer	7 Years	27	Malay	Islam	Single	Salary.	not accept.
Deck department	2nd officer	6 years	29	Malay	Islam	Married	Salary.	Supportive
Deck department	Deck cadet	1 year	27	Malay	Islam	Married	Salary.	Supportive
Engine department	Training Engineer	1 year	23	Malay	Islam	Single	Salary.	Supporting
Deck department	3rd Officer	4 Years	28	Iban	Christian	Single	To satisfy the desire for adventure.	They are very supportive.
Deck department	Deck Cadet	1 year	25	Malay	Islam	Single	To satisfy the desire for adventure.	Supportive

Appendix C: Female experiences on board

Q10 - As a woman on board ship, do you feel that the standard of work expected of you are:	Q11 - Have you had any of the following problems with your colleagues of the opposite gender?	Q12 - Which ranks have caused you problems?	Q13 - Have the people who have caused you a problem on board been:	Q14 - When you have a problem on board, how do you usually cope?	Q15 - If you reported a problem with a colleague's behavior, were you happy with the way it was handled?	Q16 - Would you encourage other women to do the same job as you?
The same as those expected of your male colleagues (who are doing the same job as you).	No		The same nationality as you.	Keep it to yourself.	Sometimes happy	No
Lower than those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).;Verbal harassment (sexual).	Master.	The same nationality as you.	Share it with your family.;Get support from colleagues.	Never happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No	Officer.	Both.	Share it with your family.;Get support from colleagues.;Report it to your manager.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No	Officer.	The same nationality as you.	Keep it to yourself.;Get support from colleagues.	Never happy	No
Higher than those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).	Master.	A different nationality to you.	Keep it to yourself.	Never happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	No			Keep it to yourself.;Get support from colleagues.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).	Master.;Rating (Deck/Engine).	The same nationality as you.	Report it to your manager.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No	Master.	A different nationality to you.	Keep it to yourself.;Get support from colleagues.	Sometimes happy	Yes
Higher than those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).;Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).	Both.	Keep it to yourself.;Share it with your family.;I shared with other female officers	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).;Physical harassment (non-sexual).;Verbal harassment (sexual).;Physical harassment (sexual).	Rating (Deck/Engine).;Staff in hotel/catering.;Chief Engineer	A different nationality to you.	Share it with your family.;Get support from colleagues.;Report it to your manager.	Never happy	No
Higher than those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).;Physical harassment (non-sexual).;Verbal harassment (sexual).;Physical harassment (sexual).	Master.	The same nationality as you.	Keep it to yourself.	Never happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	No			Get support from colleagues.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (sexual).	Master.;Officer.	The same nationality as you.	Keep it to yourself.;Share it with your family.		No
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).;Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).	Both.	Keep it to yourself.;Get support from colleagues.	Sometimes happy	Yes

The same as those expected of your male colleagues (who are doing the same job as you).	Physical harassment (non-sexual).	Rating (Deck/Engine).	A different nationality to you.	Share it with your family.;Get support from colleagues.;Report to your captain.	Sometimes happy	No
Higher than those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).	Officer.	Both.	Get support from colleagues.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).	The same nationality as you.	Get support from colleagues.;Report it to your manager.;Warned that person not to do that again. (verbal harassment)	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).;Verbal harassment (sexual).	Master.;Officer.;Rating (Deck/Engine).	A different nationality to you.	Keep it to yourself.;Get support from colleagues.;Report to head of department.	Sometimes happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	No				Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No			Get support from colleagues.	Sometimes happy	Yes
Higher than those expected of your male colleagues (who are doing the same job as you).	No		The same nationality as you.	Share it with your family.	Always happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).	Officer.	The same nationality as you.	Keep it to yourself.	Sometimes happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).;Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).;Shore staff	Both.	Get support from colleagues.;Report to your captain.;Report to your crewing manager/company.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No	Master.	A different nationality to you.	Keep it to yourself.;Share it with your family.;Get support from colleagues.	Sometimes happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	No			Get support from colleagues.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (non-sexual).;Physical harassment (non-sexual).;Verbal harassment (sexual).;Physical harassment (sexual).	Officer.;Rating (Deck/Engine).	Both.	Keep it to yourself.;Get support from colleagues.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	No			Keep it to yourself.	Always happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).	The same nationality as you.	Get support from colleagues.;Report it to your manager.	Sometimes happy	Yes
The same as those expected of your male colleagues (who are doing the same job as you).	Verbal harassment (sexual).;Physical harassment (sexual).	Rating (Deck/Engine).	A different nationality to you.	Report to your captain.	Sometimes happy	Yes
Lower than those expected of your male colleagues (who are doing the same job as you).	Bullying.;Verbal harassment (non-sexual).;Verbal harassment (sexual).	Officer.;Rating (Deck/Engine).	Both.	Keep it to yourself.	Never happy	Yes

The same as those expected of your male colleagues (who are doing the same job as you).	No	Master.;Officer.;Rating (Deck/Engine).;Staff in hotel/catering.	Both.	Share it with your family.;Get support from colleagues.	Sometimes happy	No
The same as those expected of your male colleagues (who are doing the same job as you).	No			Share it with your family.;Get support from colleagues.;Report to your captain.	Always happy	Yes

Appendix D: Company support

Q17 - Does your company have an equal opportunity policy?	Q18 - Does your company have a sexual harassment policy?	Q19 - Does your company provide training to deal with sexual harassment?	Q20 - Does your company provide paid maternity leave?	Q21 - Does your company allow your husband/partner to sail with you?	Q22 - Does your company allow the wives/partner of your male colleagues of the same rank as you to sail?	Q23 - Are you paid with the same wages as men of the same nationality who do the same job as you?	Q24 - Do you feel your chances for promotion (while working at sea) are:	Q25 - Why do you think this is?	Q26 - Does your company make a special requirement on your appearance (for example weight restriction, hair, etc)?	Q27 - If "yes", what are these requirements?	Q28 - Do you have access to female - only toilets?	Q29 - Do you have access to female - only shower?	Q30 - What kind of accommodation do you have on board?
Don't Know.	Yes	No	No	Yes	Yes	Yes	Less than your male colleagues?		No		Yes	Yes	Single cabin for yourself
No.	No	No	No	Not Applicable.	Don't Know	Yes	Less than your male colleagues?	woman are considered weak and low performance	No		No	No	Share cabin with more than one person
Yes.	Yes	No	Yes	Not Applicable.	No	Don't know	Less than your male colleagues?	Because of the work	No		Yes	Yes	Single cabin for yourself
No.	Don't Know.	No	Don't Know.	Not Applicable.	Don't Know	Yes	Less than your male colleagues?		Yes	BMI	Yes	Yes	Share cabin with one person
Don't Know.	Yes	No	No	Yes	No	Yes	The same as your male colleagues.	Doing the same thing	No		Yes	Yes	Single cabin for yourself
Yes.	Yes	Yes	Don't Know.	Not Applicable.	Don't Know	Yes	The same as your male colleagues.	They just want to be fair with each other.	No		Yes	Yes	Share cabin with more than one person
Yes.	Yes	No	No	No	Don't Know	Don't know	The same as your male colleagues.	nothing	No		Yes	Yes	Single cabin for yourself
Yes.	Yes	Yes	Yes	Yes	Don't Know	Yes	The same as your male colleagues.		No		Yes	Yes	Single cabin for yourself
Yes.	Yes	Don't Know.	No	Yes	Yes	Yes	The same as your male colleagues.	Promotion is base on your skills and performance, not gender	Yes	Female officers must strictly follow the dress code onboard. Which does not allowed any daring outfit	No	No	Single cabin for yourself
Yes.	Don't Know.	Don't Know.	Don't Know.	Yes	Yes	Yes	The same as your male colleagues.		No		Yes	Yes	Single cabin for yourself
No.	Yes	No	No	No	Yes	Yes	Less than your male colleagues?	Men are more preffered due to their strenght and relationship with male to male	Yes	BMI	Yes	Yes	Single cabin for yourself

Yes.	Yes	Yes	Yes	Yes	No	Yes	The same as your male colleagues.		Yes	BMI, medical report	Yes	Yes	Single cabin for yourself
Don't Know.	Yes	Yes	Don't Know.	Yes	Yes	Yes	The same as your male colleagues.		No		Yes	Yes	Single cabin for yourself
Don't Know.	Yes	No	Yes	Yes		Yes	Less than your male colleagues?	Lack of confidence	No		Yes	Yes	Single cabin for yourself
No.	Yes	No	No	No	No	Yes	Less than your male colleagues?	Cause 2 female manpower is equals to 1 male so thy prefer male compared tht female	Yes	Bmi, pressure, cholesterol	Yes	Yes	Single cabin for yourself
Yes.	Yes	Yes	Yes	Yes	Yes	Yes	The same as your male colleagues.		No		No	No	Single cabin for yourself
Don't Know.	Yes	No	Yes	No	No	Yes	The same as your male colleagues.		No		Yes	Yes	Share cabin with one person
Yes.	Yes	Yes	Don't Know.	Yes	Yes	Yes	Less than your male colleagues?	As a matter of fact, women are physically weaker than men, talking about the strength of a woman.	No		No	No	Single cabin for yourself
No.	Yes	Yes	Yes	No	Don't Know	Don't know	The same as your male colleagues.		No		Yes	Yes	Single cabin for yourself
Yes.	Don't Know.	Don't Know.	No	No	Yes	Don't know	Less than your male colleagues?		Yes	Different cabin level	Yes	Yes	Single cabin for yourself
Don't Know.	No	No	No	Not Applicable.	No	Don't know	Less than your male colleagues?	because woman are new in this industry. they need time to see the power of woman at sea.	No		Yes	Yes	Single cabin for yourself
No.	Yes	No	No	No	No	No	Less than your male colleagues?	Because they expect women can't do much work.	No		Yes	Yes	Single cabin for yourself
Yes.	Yes	Yes	No	Not Applicable.	No	No	Less than your male colleagues?	Because in my department, it is still mostly dominated by male, will be compare my power/energy or ability to work to male during maintenance of machinery	No		Yes	Yes	Single cabin for yourself
Don't Know.	Yes	Yes	Yes	Yes	No	Don't know	Less than your male colleagues?	They have the mindset that female is less competent than male. Female would not survive long at sea. Merely discrimination of gender.	No		Yes	Yes	Single cabin for yourself
Yes.	Yes	No	Don't Know.	Yes	Yes	Yes	The same as your male colleagues.	The equality policy	Yes	Not exceeding the max BMI required	Yes	Yes	Single cabin for yourself
Yes.	Yes	Yes	Don't Know.	Yes	Yes	Yes	The same as your male colleagues.	We have the same assignment,requirement and expectations for promotion.	Yes	Height requirement 155cm and above Bmi should be normal	Yes	Yes	Single cabin for yourself

Yes.	Yes	Yes	No	Not Applicable.	Don't Know	Yes	The same as your male colleagues.		No		No	No	Single cabin for yourself
No.	Yes	No	No	No	No	Yes	Higher than your male colleagues.		No		Yes	Yes	Single cabin for yourself
Don't Know.	Don't Know.	No	No	Not Applicable.	Yes	Yes	The same as your male colleagues.		No		No	No	Share cabin with one person
Yes.	Yes	Don't Know.	Don't Know.	Yes	Don't Know	Yes	Less than your male colleagues?		No		Yes	Yes	Single cabin for yourself
Yes.	Yes	Don't Know.	No	Yes	Yes	Yes	The same as your male colleagues.		Yes	Be neat and decent	Yes	Yes	Single cabin for yourself
Yes.	Yes	Don't Know.	No	Not Applicable.	No	Yes	Less than your male colleagues?	Women are seen weaker than man and people always think that being women mean that you are not capable enough of doing man's job.	No		Yes	Yes	Single cabin for yourself

Appendix E: Female seafarer and male acceptance

Q31 - During your free time on board are you most likely to be:	Q32 - Are male seafarers allowed access to female accommodation areas?	Q33 - Are female seafarers allowed access to male accommodation areas?	Q34 - How long do you think you will continue working at sea?	Q35 - How was male colleagues' acceptance of yourself in working on board?
Socialising with both male/female colleagues	No.	No	Until I get shore based job	They condemned us
Socialising with both male/female colleagues	Yes, all the time.	Yes, all the time.	as long my passion didn't burn out	they treat me nicely but they doubt my capabilities
Socialising with both male/female colleagues	No.	No	I dont know	Accept
Socialising with both male/female colleagues	Yes, sometimes	Yes, sometimes	Until i get my COC	
Socialising with both male/female colleagues	No.	No	Not sure	Great
Socialising with both male/female colleagues	No.	No	Until I feel like it's enough.	They're good.
Alone	No.	No	1-2 more years	underestimate by male
Socialising with both male/female colleagues	Yes, sometimes	Yes, sometimes	Until I get want I want	They always support me until now
Alone	Yes, sometimes	Yes, sometimes	As long as the company hires me	Average. Half of them are quite sexist and chauvanist onboard
Alone	No.	No	Quit already	Ok
Alone	Yes, all the time.	Yes, all the time.	3 years	Quite positive
Socialising with both male/female colleagues	No.	No	Another 5 years	Positive
Alone	No.	No		They accept me as who I am and we work well together except for some negative people
Socialising with both male/female colleagues	No.	No	6 years	They were able to adapt
Socialising with both male/female colleagues	No.	No	2 years	Not encouraging.
Socialising with both male/female colleagues	No.	No	2 years	Moderate to good
Socialising with both male/female colleagues	No.	No	I only work at sea at the beginning of my career. I dont like it and i dont want to sail again.	Majority of male colleagues ok but few of them always underestimate female colleagues.
Alone	No.	No	Till I am allowed to leave.	Some are okay, some are not.
Socialising with both male/female colleagues	No.	No	Forever	Positive
Alone	Yes, sometimes	Yes, sometimes	Already working ashore	Mix acceptance

Socialising with both male/female colleagues	No.	No	until i get pregnant	some of them accept and socialising with me equal with other men colleagues but some of them still trying learn to adapt the new environment.
Socialising with both male/female colleagues	No.	No	I am searching for shore job but no opportunities is given for me at shore.	Some of them doubt our capabilities. Some of them support us
Socialising with both male/female colleagues	Yes, sometimes	Yes, sometimes	Untill completed my CoC of class 1, maybe another 5 years	Mostly they were gladly accept and will teach me if I don't know something
Socialising with both male/female colleagues	Yes, all the time.	Yes, all the time.	Not working at sea at the moment. Planning to join back in 2022	Great
Socialising with both male/female colleagues	No.	No	As long as i'm still single	Supportive
Socialising with both male/female colleagues	Yes, sometimes	Yes, sometimes	As long as i am able to	They are mostly professional in socializing with me and often ask me if i am uncomfortable.when i was cadet i get bullies and harrass a lot maybe because i keep it to myself.however as i get promoted and experience more,i am able to handle it better and voice out my feelings so they are able to correct the way they approached me.
Socialising with both male/female colleagues	No.	No	not sure	very good
Socialising with both male/female colleagues	No.	No	Until married	As long as we can do our job, there should be no problem for them
Alone	Yes, all the time.	Yes, all the time.		
Socialising with both male/female colleagues	No.	No		
Socialising with both male/female colleagues	No.	No	Not sure	Most of my colleague are supportive
Socialising with both male/female colleagues	No.	No	Less than 10 years	They accept the way I am and always support whatever I do.

Appendix F: Muslim female seafarers' feedback

Q5 -Which of the following describes you the best?	Q6 - What is your religion?	Q36 - Does the company supply halal foods on board?	Q37 - How was food preparation/segregation between halal and non-halal onboard for you?	Q38 - How did you feel when your food was served with none halal ingredient?	Q39 - As a Muslim, do you feel comfortable with sharing the same toilet and bathroom with males?	Q40 - Do you feel comfortable when you are assigned to work with men during the night shift or in the engine room?	Q41 - As a Muslim, do you care with your religious tough about halal and haram when working on board?	Q42 - If "Yes" please explain	Q43 - Is being a Muslim female seafarer working on board is challenging for you?
Malay	Islam	Yes			No	Yes	No		No
Malay	Islam	Yes	not cooked in one same dishes	frustrating	Yes	Yes	Yes	halal and haram is not fixed to one solution only. for example working with a man in a room, as long there is no bad intentions and no physical touching then it is acceptable since the area onboard is not very big and enclosed all the times for safety..	yes, mostly because of lack of cabin intended for one person or atleast segregate for female only.
Lun bawang	Christian	Yes	No non halal food alow on board	Not comfortable	No	Yes	No		Im not muslim.
Malay	Islam	Yes			No	Yes	Yes	Haram things will never be halal	No
Malay	Islam	Yes	Good	None	No	Yes	Yes	My company is malaysian company. So i think everyone know what to do	Sometimes
Dusun	None	Yes	For the vessel that I work in, they only served halal foods.	They didn't served any non-halal food, so i'm all good.	No	Yes			
Malay	Islam	Yes	always halal	never	No	Yes	No		no
Indian	Islam	Yes	Even though just only me Muslim they never cook non halal infront of me.	Very bad but that's not the point when u onboard	No	Yes	No		No
Malay	Islam	Yes	Only halal food onboard	Not applicable for me	No	Yes	Yes	Religion reflects my identity. No further explanation required.	Yes. Some of them will try to demmoralise me by saying that im not following & complying with syariaah regulations as im working away from home, with men who are not my muhrim
Malay	Islam	Yes	Halal		No	No	Yes		Yes
Punjabi	Islam	Yes	Only halal	N/A	No	Yes	Yes	Physical contact	Not really
Malay	Islam	Yes	All halal food serve onboard	N/A	No	No	Yes		Yes
Malay	Islam	Yes	100 % halal		Yes	Yes	Yes	The halal and haram is a choice. Will power is important to stand for who you are.	No
Indian	Islam	Yes			Yes	Yes	No		
Indian	Hindu	Yes	Food is labelled	Very sad	No	No	Yes	Yup it's against our culture	Challengimg
Chinese	Buddhist	Yes	Only halal food available onboard	N/A	No	Yes	Yes	N/A	N/A

Malay	Islam	Yes	All halal food		No	No	Yes	As a muslim women, i need to protect my dignity in all aspect. How to associate, communicate, etc.. so others can respect me as a muslim women.	Yes
Malay	Islam	Yes	We don't have non-halal food.	NA	No	Yes	Yes	Yes, but we can put a limit in any situation regarding this matter.	Yes, we deal with males, we are far from home, our working schedules are tight and not flexible that we have to pray 5 times daily, etc.
Malay	Islam	Yes			No	Yes	Yes		Yes
Malay	Islam	Yes	All halal food	Not applicable	No	Yes	No		No
Malay	Islam	Yes	all food onboard is halal	i will not eat anything	No	Yes	Yes	of course, in Al-Quran clearly stated that we should eat halal food except when emergency (darurat). Just follow what Allah asked you to do.	it is quite challenging. how to get along with male colleagues. we cant do some heavy work but then we will try so hard to do that work to earn male colleagues respect.
Malay	Islam	Yes	Only halal served onboard		No	Yes	No		To me, I'm used to it. Most of the foreign seafarers accept Muslim female and they respect us more than Muslim men
Malay	Islam	Yes	There is no non-halal food preparation as most crew were Muslim, there also no alcohol and drugs policy by company	This problem never occur to me	No	Yes	Yes	Mostly, vessel I have been onboard always have Adzan onboard by deck officer, so it is easier to remind me for performing solat even I was working in engine room. Also, there is never occur to me about halal or Haram for the food provided.	Yes, for sure.Even though there were slightly touching or skin contact during work with machinery, I can just ignored it because we were doing work, but it is not tolerable with me if it is not about working and just want to touch. I was also always being compared to other male colleague in terms of power/stamina for doing a job or maintenance. For working condition and preparing for solat, I always need to make sure my aurat were properly covered
Malay	Islam	Yes	They segregate the non-halal and halal food by labeling the food during the serving period. As for the preparation of food i am not entirely sure.	I am okay with it. We need to tolerate in a way to survive on board. No objection for me.	Yes	Yes	No		Not at all.
Malay	Islam	Yes	Well segregation	Not good	No	Yes	No		For me is ok as long as i know well how to control myself
Kadazandusun	Christian	Yes	We only have halal food onboard	All food are halal in my company					
Malay	Islam	Yes			No	Yes	No		
Malay	Islam	Yes	N/A	Never experience before	No	Yes	Yes	As a muslim, we should know what are the limitation when working with other gender especially talking about aurat.	No. Because majority of my crew was muslim and they respect when female seafarer working onboard
Malay	Islam	Yes	Good		No	Yes	Yes		No because i know what i sign up for.
Malay	Islam	Yes			No	Yes	Yes		
Iban	Christian	Yes	Malaysian company. No problem with the food.		No	No			No
Malay	Islam	Yes	Only halal food available	Not applicable	No	Yes	No		