Achieving gender equality in seafaring: an analysis of stakeholders' suggestions

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Abstract

Purpose – This paper examines the changes suggested by maritime stakeholders to achieve gender equality in seafaring, a male-dominated profession.

Design/methodology/approach – Adopting a four-stage career cycle framework, this paper analyzes changes proposed by 423 industry stakeholders to promote gender equality in seafaring. These proposed changes were posted on the Day of Seafarers 2019 virtual wall set up by the International Maritime Organization, which served as a forum for industry stakeholders from all over the world to voice their opinions and suggestions.

Findings – The data analysis shows that the suggested changes reflect many challenges and barriers women seafarers face. While stakeholders from Organisation for Economic Co-operation and Development (OECD) countries are more likely to call for changes to remove barriers in the retention and development stage, gender equality in seafaring in non-OECD countries is still seriously hindered by barriers in the recruitment stage. The paper also reveals that comparatively male stakeholders are less likely to appreciate the problems women seafarers face.

Originality/value – This paper takes a comparative approach, comparing the changes proposed by seafarers and other industry stakeholders from different parts of the world. This approach provides a nuanced understanding of issues related to gender equality in seafaring by showing that stakeholders from different backgrounds have different priorities.

Keywords Career cycle, Gender equality, Sustainable development, Women seafarers

Paper type Research paper

1. Introduction

"Achieve gender equality and empower all women and girls" is one of the United Nations' (UN) Sustainable Development Goals (SDGs). However, it is a challenging task in male-dominated sectors, such as construction, mining and transportation (Australian Human Rights Commission, 2013; Turnbull, 2013). This is particularly so in the maritime shipping industry as women are estimated to represent only two percent of the seafarer population in the world and seafaring gender equality remains to be extremely problematic (European Commission, 2020). With more shipping companies adopting corporate social responsibility (CSR) policies and programmes, they are under pressure to promote and achieve gender diversity in the workplace (Tang and Gekara, 2020). To this end, it is important to identify the challenges and barriers.

To promote women's participation in seafaring, a large amount of research has been conducted to examine women seafarers' experiences, issues and challenges they face at work and related shipping company policies (Zhao, 1998; Belcher *et al.*, 2003; Thomas, 2004; Guo and Liang, 2012; Kitada, 2013; Stannard *et al.*, 2015; MacNeil and Ghosh, 2017; Pike *et al.*, 2017). Based on the findings, various recommendations have been provided. What is missing in this body of literature are measures directly proposed by seafarers and other industry stakeholders. For the 2019 Day of the Seafarer campaign, the International Maritime Organization (IMO) encouraged seafarers, shipping companies and other stakeholders of all

genders across the globe to show solidarity for and come on-board with gender equality in seafaring and invited them to post on a virtual wall answers to the question, "What would you do if you were able to make just one change to achieve gender equality in seafaring?" This invitation received a large number of answers from the maritime community, and this paper analyzes these answers to provide the perspectives of these stakeholders.

It is a common practice in the shipping industry that ship owners/managers from traditional maritime nations (e.g. the UK and Japan) register ships in flag of convenience countries (e.g. Panama and Liberia) and source seafarers from cheaper labour supply countries (e.g. the Philippines, China, India and Eastern European countries). This practice makes shipping a globalized industry and gives rise to a seafarer global labour market (ILO, 2001). Nevertheless, seafarers participating in this global market are not a homogeneous group but embedded in different national contexts. As such, gender equality in seafaring may have different barriers in different parts of the world. A comparative approach to tease out the differences has not been initiated in the previous research on women seafarers. To fill up this gap, this paper draws on a career cycle framework to compare and discuss the differences between the changes directly proposed by seafarers and other industry stakeholders from different parts of the world. It provides a nuanced understanding of issues related to gender equality in seafaring by showing that stakeholders from different backgrounds have different priorities. To make gender equality policy initiatives more effective, policymakers may need to take these differences into account.

The next section of this paper reviews the literature on gender equality in seafaring and draws out a theoretical framework to be employed in data analysis. After an explanation of the research data and methods, the paper moves on to present the research findings. It is concluded by discussing the findings and drawing out the implications.

2. Gender equality in maritime shipping

In line with the UN SDGs, the IMO has undertaken various initiatives to promote women's participation in the shipping industry since the late 1980s. More specifically, in 2010, it adopted Resolution 14 of the STCW (the Convention on Standards of Training, Certification and Watchkeeping for Seafarers) Manila conference: Promotion of the participation of women in the maritime industry. The Resolution requires Member States to ensure equal access of both genders in the maritime industry, to promote women's greater participation in maritime training and at all levels in the maritime industry and to highlight the role of women in the seafaring profession. In 2019, "Empowering Women in the Maritime Community" was specifically chosen by the IMO to be the World Maritime Day theme in order to raise awareness of the importance of gender equality. Similarly, another specialized UN agency, the International Labour Organization (ILO), adopted the Resolution concerning the promotion of opportunities for women seafarers in 2006. At the country level, there are also numerous initiatives. For example, in the UK, the Women in Maritime Taskforce has been set up to promote gender balance in the sector, and in Denmark, many shipping companies have signed a charter for more women in shipping (Bakhsh, 2020).

Gender equality initiatives in shipping also draw momentum from evidence indicating that gender diversity can bring various benefits to an organization and improves its performance. A number of studies have shown that companies with more women board members are more likely to have better financial returns than those with fewer (Owen and Temesvary, 2018). Two meta-analyses conducted by Post and Byron suggest that women on boards tend to not only boost firms' financial performances (Post and Byron, 2015) but also enhance CSR (such as CSR rating and codes of ethics) and social reputation (Byron and Post, 2016). Gender diversity studies have further revealed that companies with more women in

their research and development teams were more likely to have increased innovation outputs (Dí az-Garcí a *et al.*, 2013; Sastre, 2014).

Therefore, there are both push (e.g. UN SDGs and government policies) and pull (the expected benefits) factors promoting gender diversity and equality in organizations. As a response to these factors, many shipping companies see gender diversity in the workplace as an important part of CSR and report their performance in CSR and sustainability reports (Tang and Gekara, 2020).

In practice though, seafaring can be particularly challenging for women and previous research revealed a number of hurdles that women seafarers are likely to face (Belcher *et al.*, 2003; Thomas, 2006; Turnbull, 2013; Stannard *et al.*, 2015; Guo, 2019; ILO, 2019; Piñeiro and Kitada, 2020), including a lack of employment opportunities, bullying and sexual harassment at sea, resistance from male colleagues, the need to make more effort than male colleagues in order to be accepted by the crew, poor working and living conditions on-board ships and feeling isolated at sea and in need of peer support because there is often only one woman working on a ship.

In general, this body of research also shows that shipping companies are reluctant to employ women seafarers, though one recent piece of research (Pike *et al.*, 2017) indicates that driven by inclusion and diversity policies, UK shipping companies are now keen to recruit women seafarers to demonstrate compliance. It is fair to say that despite policy initiatives and interventions and some positive outcomes, gender equality remains extremely difficult to achieve in the shipboard workplace (European Commission, 2020).

Nevertheless, positive outcomes do deserve attention. Drawing on the attraction–selection–attrition (ASA) framework (Schneider *et al.*, 1995), Guo and Liang (2012) argue that the male-dominated culture in the shipboard workplace can be gradually reshaped and become more accommodating to women seafarers when the latter start to join. They showed that once women seafarers were attracted to seafaring, selected by shipping companies and successfully socialized into the shipboard workplace, they would impress their (male) senior colleagues by their work attitude, capabilities and sense of responsibility and make the workplace more accepting and friendlier to women seafarers. Similarly, according to Thomas (2004), shipping companies who had employed women seafarers tended to be positive about their professionalism and competence and even perceived that women seafarers performed better than their male counterparts. In another study, Theotokas and Tsalichi (2013) also found that when male seafarers had worked with a woman colleague, they were likely to adopt a positive and accepting attitude. Therefore, the participation and retention of women seafarers and a gradual cultural shift towards being more inclusive are mutually reinforcing.

To promote gender equality in employment, it is important to identify the obstacles and challenges systematically, and for this purpose, a career cycle approach is often taken. In the transport sector, Turnbull (2013) develops a career cycle model consisting of six stages: attraction, selection, retention, disruption, re-entry and realization. The disruption and re-entry stages are added to consider women's career disruption possibilities due to childbearing and other caring responsibilities. Realization refers to "the progression from a job to a career and the subsequent realization (self-actualization) of the individual" (p. 9). In relation to women seafarers, Turnbull argues that recruitment and retention are the two most critical stages and points out that policy interventions should be directed at mitigating and removing barriers in these two stages.

In other male-dominated industries, such as mining and construction, women face similar challenges, such as sexual harassment, resistance from male colleagues, poor working conditions, a lack of female interactions and an unsupportive environment towards healthy family commitments (Lekchiri and Kamm, 2020). Unsurprisingly, a career cycle approach has also been adopted in these industries to facilitate the inclusion of women (Australian Human Rights Commission, 2013). In this approach, attraction, recruitment and retention and

development are seen as the stages of a career cycle, and each stage is crucial to promote women's participation.

Although the detailed models used in previous studies differ, the career cycle approach helps tease out the issues of women's employment in male-dominated industries holistically and systematically. Therefore, this paper adopts this approach. It first maps changes recommended by stakeholders into different stages of a career cycle. Then it conducts analyses to find out the stages in which women seafarers face more challenges and the differences between different groups of stakeholders.

3. Research data and methods

As of June 1st of 2020, a total of 426 posts were made on the IMO virtual wall, and the majority of these posts contained brief information about the poster's gender, occupation and nationality. These posts were from 423 individuals (three of them made the same post twice), including 248 females (58.6%), 171 males (40.4%) and 4 unspecified individuals. They were from a wide range of maritime-related occupations, including 272 seafarers of various ranks, 42 maritime students and cadets, 12 pilots, 9 marine superintendents, 184 other shore-based stakeholders (e.g. maritime training institute lecturers, maritime lawyers, port workers, surveyors, maritime authority officers, trade unionists and HR managers) and 4 unspecified individuals. The majority of them (59.3%) are from 11 countries, India 37, Nigeria 35, Ghana 28, Brazil 24, Malaysia 23, The Philippines 20, The United Kingdom 20, The United States 20, Egypt 19, Kenya 15 and Mexico 10. Two major seafarer supply countries, China and Russia, however, are not represented. By contrast, African and Latin American countries, who are minor players in the global seafarer labour market and have rarely been the focus of maritime labour related studies, are well represented. As such, these posts capture some hitherto under-represented voices.

These 423 posts on the virtual wall together with the demographic information of the respondents formed the dataset for this research. Overall, they captured a wide range of suggestions on achieving gender equality in seafaring from stakeholders across the world. While the wide range of suggestions allowed producing a comprehensive list of policy recommendations, the demographic information enabled the examination of the differences between stakeholders from various backgrounds. The majority (393) of the posts were written in English, and 30 of them were in French, Spanish, Portuguese or Arabic. These 30 posts were translated into English using both DeepL Translator and Google Translator. The usage of two translators allowed cross-checks which ensured that the translation was as accurate as possible.

Data analysis consisted of two stages. The first stage was a qualitative thematic analysis of the 423 posts. An induction approach to data coding was taken (Braun and Clarke, 2012), in which codes or themes were not predefined but drawn out of these posts. Before coding, the author did a thorough reading of the entire set of posts to become familiar with the data. In the first round of coding, each post was assigned a code. As each post proposed one change, no post was assigned multiple codes. All the posts were then sorted into theme groups. In the second round, the posts with the same code were read in comparison with each other. If the meaning of a particular post was quite different from that of the rest, either a new code was generated to accommodate it or it was assigned another existing code that was more suitable. Meanwhile, some codes were combined for two reasons. First, they had similar meanings in the context of this research, for example, "equality in employment" and "anti-discrimination". Second, their meanings were closely related. For example, "anti-harassment", "respect" and "acceptance" were all related to how women seafarers were expected to be treated by their male colleagues in the workplace. Furthermore, as the boundaries between closely related codes in some cases were ambiguous, combining these codes into one helped solve this issue.

In the next step, the codes or themes were categorized and mapped into different stages of a career cycle.

The second stage was a quantitative analysis. As information about nationality and gender was available, SPSS chi-square tests were conducted to explore what differences nationality and gender would make in terms of themes identified in the first stage. The large dataset made the comparisons meaningful, which provided a more nuanced understanding of gender equality in seafaring in a globalized industry.

4. The thematic analysis findings
Career cycle models have been adopted in previous research about gender equality in the workplace (Australian Human Rights Commission, 2013; Turnbull, 2013). They cover a number of career stages, including attraction, recruitment, retention and development, interruption, re-entry and realization. In the case of this research, the themes identified largely fall into the first three stages, which indicates that these stages are more crucial for gender equality in seafaring. It is worth noting that an extra stage "cadet training" that has not been featured in previous research also emerges from the thematic analysis. This extra stage reflects the difference between seafaring and many other occupations. For seafarers, vocational training is indispensable. To enter the profession, one needs to take lengthy vocational training, pass relevant exams and obtain a certificate of competency. Therefore, this paper adopts a four-stage framework that achieves a better fit with the data. Table 1 shows all the themes that emerged from the data, the stages that they are mapped into and the number of posted in each theme and stage. Next, the themes will be discussed in detail.

4.1 Attraction
Shipping and seafaring activities are largely invisible to the general public because they take place at sea and in enclosed ports, which are inaccessible to the eyes of the wider population. As such, many people may have never heard or been made aware of the seafaring profession (Tang, 2012a; Pike et al., 2017). Furthermore, seafaring has been traditionally associated with men, and therefore, for those who know it, it may not occur to them that it can be a profession for girls. As such to attract women into the profession, it is important to raise awareness and change the perception that seafarers are by default associated with men only.

Stage of a career cycle	Theme	Posts per theme	Post per stage	
Attraction	Raise awareness and encourage girls	32	64	
	Attitude change	25		
	Role models	7		
Cadet training	equality in education/scholarship	36	45	
	Gender sensitivity training	9		
Recruitment	Equality in employment/anti-discrimination	119	152	
	Regulation/affirmative act	33		
Retention and development	Anti-harassment/respect/acceptance	26	106	
	improve workplace conditions	8		
	PPE/Sanitary products	14		
	Flexible employment/maternity leave	18		
	Support	25		
	Fair promotion/more women leaders	15		
Not relevant	Encouragement	16	56	
	Non-gender related	40		
Total		423	423	

In this context, 32 respondents proposed to "raise awareness and encourage girls" to enter. While some of them simply posted "More visibility for women in shipping", others provided more specific answers. For example, a Nigerian male deck officer posted, "My one change is to go out to my own interior village and enlightened the females on seafaring job".

Another 25 respondents proposed "attitude change", that is, to change attitudes and perceptions. One female maritime administration officer from Ghana replied, "Denouncing the age-old notions that seafaring is solely a male-dominated profession and encouraging young girls at an early age to take on the challenge of entering into the seafaring profession".

"Role models" is another theme in this stage. Role models make visible that women can develop a career at sea, inspire others to follow and offer them reassurance and hope for success. They can be instrumental in raising awareness and changing perceptions. Therefore, seven respondents' answers are related to this theme. A Canadian woman chief officer posted, "Female role models, instead of feeling like my career was bucking the system".

4.2 Training and education
When a girl is attracted to seafaring and plans to venture into it, she will need to go through cadet training and obtain the qualification first. However, unequal participation in education between males and females is not uncommon, especially in developing countries (Shabaya and Konadu-Agyemang, 2004; Tuwor and Sossou, 2008). This inequality is more profound in seafarer cadet training, and some training colleges are not even open to female applicants (Pike *et al.*, 2017). Furthermore, cadet training requires specialized and capital-intensive equipment and facilities, such as ship bridge and engine room simulators, which makes tuition fees too expensive to be affordable for poorer students from developing countries (Zhao and Amante, 2005). Expensive tuition fees and unequal access to education inevitably work together to discourage women's participation.

Against this background, 36 suggested changes fall under the theme "equality in education/scholarship" (for female cadets). One Nigerian female marine surveyor made this suggestion, "Give as many opportunities for training to female cadets as the male colleagues. Even so often from the training stage there are always fewer females selected, so the system is already creating a disadvantage".

It was also suggested that topics on gender issues and prejudice and bias against women should be an integral part of seafaring vocation training. In this way, the next generation of male seafarers from the very beginning would be sensitized to a mixed-gender working environment and learn to behave with respect towards women colleagues. Nine respondents proposed "gender sensitivity training". An Indian female engineer officer, for example, posted on the virtual wall, "Would be to sensitize men regarding acceptable behaviour towards women on-board. Sometimes getting carried away in an all-male environment 'conditions' mindset and one is carried away to overlook it when women are on-board".

4.3 Recruitment
As Turnbull (2013) points out, recruitment is one critical stage in the career cycle of women seafarers. In many places, shipping companies are reluctant or refuse to employ women seafarers (Turnbull, 2013; Pike *et al.*, 2017; Guo, 2019). In this research, as shown in Table 1, this is the stage where the respondents were most likely to propose related changes (152 posts in total).

On the virtual wall, a Nigerian female deck officer posted, "Employ more female seafarers . . . It's five years since I graduated and got my license but no work". Concurring with this Nigerian deck officer, another 118 proposed changes fall under the theme of "equality in employment/anti-discrimination", making this theme the most popular one.

Under this theme, respondents called for shipping companies and the industry as a whole to promote equal opportunity in employment.

There are also 33 respondents going a step further, calling for regulations or affirmative act to ensure equal employment opportunity. These were categorized into the theme "regulation/affirmative act". A male Ukrainian captain for example suggested, "It must be accepted a new international law for obligatory of at least 15% women employment on board of each vessel".

4.4 Retention and development
Following the recruitment stage, retention and development is the stage where the respondents proposed the second largest number of related changes (106 posts in total, see Table 1). In this stage, six themes emerge from the data and the most frequent one is "anti-harassment/respect/acceptance". It is related to women seafarers' interaction with their male colleagues in the workplace and calls for respect and acceptance from the latter. More importantly, it requests anti-harassment policies. One UK female chief officer suggested:

> Stop making advertising campaigns about equal opportunity and start actively investigating complaints, ask females that have left companies why. Companies won't start caring about equal opportunity until they are held accountable for what females have had to tolerate in their roles.

As seafarers work and live aboard ships for a prolonged period, the shipboard environment can be problematic for women seafarers. Eight posts are categorized into the theme "improve workplace conditions". One Malaysian male seafarer, for example, suggested, "Improving the living condition on-board as a whole to allow for a more suitable place for women to work in".

Fourteen respondents mentioned personal protective equipment (PPE) and sanitary products onboard ships. Although these are also related to shipboard environments, they are more specific. For this reason, these are categorized into a different theme "PPE/sanitary products". Half of them proposed to provide PPE fit for women. Another seven respondents' answers were related to the provision of personal sanitary and hygiene products. One Irish female ETO proposed, "Please make it a requirement for companies to provide female sanitary products onboard their ships, just so I don't have to pack a five-month supply."

A seafaring career entails intermittent and prolonged separations from home, which are disruptive to family life (Tang, 2009, 2012b). In one study of women seafarers, the authors pointed out that women leaders in shipping tended to be single and never married (Dragomir *et al.*, 2018). Furthermore, the Maritime Labour Convention, 2006, adopted by the ILO to protect the rights of seafarers worldwide, while specifying that seafarers are entitled to paid annual leave, does not touch on maternity or paternity leave. This omission reflects the fact that the industry in general does not provide seafarers any maternity or paternity benefits. This practice is particularly challenging for women. As such, the theme "flexible employment/maternity leave" appears in 18 posts. An Indian female pilot, for instance, posted, "Eliminate pregnancy discrimination for women seafarers by making compulsory, the adoption of Maternity rights and policies about the break in service and allow the mothers to get back at sea!"

Needless to say, career development is important for retention. As the number of women seafarers is small and they are constantly subject to discrimination and prejudice in their careers (Belcher *et al.*, 2003; Thomas, 2004; European Commission, 2020), they need peer support, solidarity and mentoring. Twenty-five of the respondents expressed such opinions, calling for support, such as women support groups/associations, women seafarer helplines and mentoring. These reflect the theme "support". A US female working in the offshore industry proposed, "My one change is mentoring for female seafarers".

The theme "fair promotion/more women leaders" were related to 15 respondents' posts. Some of them believed that women seafarers were not appraised or promoted fairly. Thus, one female Ghana chief officer suggested, "Female seafarers should be given an equal platform for promotions." It can be argued that fair promotion of women seafarers serves three purposes. First, it is beneficial for individuals and motivates them to stay in the profession. Second, they serve as role models to inspire the next generation. Third, promotion enables some women seafarers to grow into leaders in the company as well as in the industry, who are more able to promote gender equality and make women's voices heard. One US female deck officer suggested, "More women are needed in leadership roles – on ships and ashore, in order to provide the female perspective on the executive/senior level."

4.5 Other proposed changes
There are also some posts that do not specifically answer the question – what would you do if you were able to make just one change to achieve gender equality in seafaring. They can be categorized into two themes. One is "encouragement" which does not recommend any change but simply encourages women to believe in themselves and be brave. One Mozambique female student for example posted, "The most important thing is that women must believe that they can and do it whenever they have chance!"

The other theme is "non-gender related". Forty respondents asked for changes in relation to other seafaring issues, such as racism and criminalization of seafarers. For instance, one Indian male deck officer posted, "Stop racism in the industry. Give opportunities irrespective of colour to all in all domains of Shipping Industry".

5. The comparative analysis findings
Although shipping is a global industry and the seafarer labour market is largely globalized (ILO, 2001), some of the challenges seafarers face may vary depending on where they are from (Tang and Zhang, 2019). The same applies to women seafarers, and for this reason, gender equality may entail different priorities in different parts of the world. To develop a more nuanced understanding of gender equality issues in this global industry, it is important to examine nationality differences.

To make such an analysis meaningful, the nationalities of respondents are categorized into two groups. One is Organisation for Economic Co-operation and Development (OECD) countries, and the other non-OECD countries. A total number of 113 respondents are from OECD countries, and the remaining 310 are from non-OECD countries.

Table 2 shows the distribution of answers from each group across the themes and the stages. Table 3 shows the result of the chi-square test. As less than 20% of the expected counts are less than 5 and all individual expected counts are greater than 1, the chi-square test is valid (Yates *et al.*, 1999), which indicates statistically significant differences. Table 2 shows that the most visible differences are related to three themes: equality in education/scholarship, equality in employment/anti-discrimination and PPE/sanitary products. While there were significantly more respondents from OECD countries, suggesting changes associated with PPE/sanitary products, more respondents from non-OECD countries recommended equality in education/scholarship and equality in employment/anti-discrimination.

The differences reflect two issues. First, in OECD countries, especially Western European countries, cadet training is more likely to be sponsored by shipping companies with subsidies from the governments (Frazer-Nash Consultancy, 2017). By contrast, although there are also shipping companies sponsoring cadet training in non-OECD countries, the number of sponsored positions are very limited and the majority of non-OECD cadets have to pay for the

Stage	Theme	OECD (%)		Non-OECD (%)	
Attraction	Raise awareness and encourage girls	8.0	17.7	7.4	14.1
	Attitude change	5.3		6.1	
	Role models	4.4		0.6	
Cadet training	Equality in education/scholarship	1.8	4.5	11.0	12.9
	Gender sensitivity training	2.7		1.9	
Recruitment	Equality in employment/anti-discrimination	23.0	31.0	30.0	37.4
	Regulation/affirmative act	8.0		7.7	
Retention and development	Anti-harassment/respect/acceptance	8.0	35.5	5.5	21.3
	Improve workplace conditions	2.7		1.6	
	PPE/Sanitary products	9.7		1.0	
	Flexible employment/maternity leave	6.2		3.5	
	Support	6.2		5.8	
	Fair promotion/more women leaders	2.7		3.9	
Not relevant	Encouragement/Non-gender related	11.5	11.5	13.9	13.9
Total		100	100	100	100

Table 2.
Theme * Nationality
crosstab results

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	39.589[a]	13	0.000

Note(s): [a]Five cells (17.9%) have expected count less than 5. The minimum expected count is 1.87

Table 3.
Chi-square test (Theme
* Nationality)

training themselves (Zhao and Amante, 2005; Tang and Zhang, 2021). Furthermore, in many non-OECD countries, girls do not have equal access to education (Shabaya and Konadu-Agyemang, 2004; Tuwor and Sossou, 2008). Regarding maritime training, Western European countries started to train women cadets in the 1970s (Zhao, 1998), whereas the major seafarer supply countries in Asia, such as the Philippines and India, did so only in the late 1990s (Tangi, 2016; SHM Shipcare, 2019). Unequal access and poverty make it challenging for girls to take seafarer cadet training. In this context, the difference between the two groups concerning the theme of equality in education/scholarship is understandable.

The second issue is equality in employment, which also reflects cultural differences. The Global Gender Gap Index (World Population Review, 2022) shows that while Western Europe (OECD countries) has the highest gender parity, Asia and Africa have the lowest. In relation to the major seafarer labour supply countries in Asia, such as the Philippines and India, research has shown that the traditional patriarchal belief that seafaring is man's turf still prevails (Tangi, 2016; Gupta, 2021). As a result, shipping companies and manning agencies in Asian (and also African) countries are reluctant to accept female applicants (Tangi, 2016; Pike et al., 2017; Human Rights at Sea, 2019). By contrast, in Western European countries, it is reported that workplace inclusion and diversity policies have become a driving force spurring shipping companies to recruit more women seafarers (Pike et al., 2017). This trend is reflected in seafarer population statistics. While women represent only about 2% of the seafarer population in the world (European Commission, 2020), around 16% of UK seafarers active at sea in 2019 are female (DfT, 2019) and 7% of seafarers working on Danish-flagged ships are women (Bakhsh, 2020). As women in non-OECD countries face more barriers in the recruitment stage, respondents from these countries have more reasons to suggest changes in the area of "Equality in employment/anti-discrimination".

The two issues mean that women seafarers from non-OECD countries face more challenges, especially in the early stages of the career cycle. When the initial entry is

overwhelmingly difficult, they are more likely to be blocked from progressing to the retention and development stage. Having experienced higher entry barriers, understandably, non-OECD respondents were more likely to propose the removal of these barriers. By contrast, in OECD countries, cadet training is more likely to be sponsored and inclusion and diversity policies are gaining momentum in seafarer recruitment, which seems to have afforded OECD respondents to pay more attention to retention and development issues. As such, OECD respondents, especially women seafarers, were more likely to propose changes in relation to practical issues at the workplace such as PPE/sanitary products.

Overall, Table 2 indicates that while OECD respondents were more likely to propose changes in the retention and development stage (which contains 37.4% of the OECD posts), non-OECD respondents' proposed changes were more likely to fall into the recruitment stage (which contains 35.5% of the non-OECD posts).

Apart from nationality, the chi-square test shows that gender also makes differences (see Table 4). As shown in Table 5, more than half of the male respondents focused on two themes: slightly over a third (33.9%) of them proposed changes to promote equality in employment/anti-discrimination, and 22.2% of them used the opportunity to raise non-gender-related grievances. Comparatively, while around a quarter (24.2%) of female respondents also focused on equality in employment/anti-discrimination, their proposed changes are more evenly spread out across the four stages. The differences may suggest that while men are aware of gender inequality in shipping, they are less likely to be aware of the specific barriers and challenges women face in every stage of a seafaring career cycle.

6. Concluding discussion

This paper examines changes proposed directly by 423 industry stakeholders to promote gender equality in seafaring. It sheds new light on gender equality in seafaring in several

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	39.490[a]	13	0.000

Note(s): [a]Five cells (17.9%) have expected count less than 5. The minimum expected count is 2.86

Table 4.
Chi-square test (Theme * Gender)

Stage	Theme	Female (%)		Male (%)	
Attraction	Raise awareness and encourage girls	8.9	18.6	5.8	9.9
	Attitude change	7.3		3.5	
	Role models	2.4		0.6	
Cadet training	Equality in education/scholarship	10.1	12.5	6.4	8.2
	Gender sensitivity training	2.4		1.8	
Recruitment	Equality in employment/anti-discrimination	24.2	32.7	33.9	40.9
	Regulation/affirmative act	8.5		7.0	
Retention and development	Anti-harassment/respect/acceptance	6.5	29	5.8	18.6
	Improve workplace conditions	1.2		2.9	
	PPE/Sanitary products	4.8		0.6	
	Flexible employment/maternity leave	5.2		2.9	
	Support	7.3		4.1	
	Fair promotion/more women leaders	4.0		2.3	
Not relevant	Encouragement/Non-gender related	7.3	7.3	22.2	22.2
Total		100	100	100	100

Table 5.
Theme * Gender crosstab results

ways. First, as the changes were proposed by a large number of stakeholders based on their experiences, this analysis covered a wider range of recommendations than a small research team could come up with and therefore it was able to synthesize these into a more comprehensive list. Overall, the analysis identified 15 themes, and 13 of them were relevant to policy changes towards gender equality.

Second, this paper draws on the career cycle approach (Australian Human Rights Commission, 2013; Turnbull, 2013). In the process of mapping the identified themes to the career cycle stages, it becomes clear that a new stage, cadet training, needs to be considered in a seafaring career. This additional stage reflects the nature of the seafaring profession: obtaining a certificate of competency is the basic entry requirement for this profession which entails taking lengthy vocational training courses and passing relevant exams.

Third, while previous research implicitly treated women seafarers as a homogeneous group, this paper differentiates OECD and non-OECD women seafarers and creates a nuanced understanding of how their nationality may condition the career barriers. Although the cadet training stage is an integral part of the four-stage framework adopted in this paper, this stage seems to be a concern mostly for non-OECD respondents, and for OECD respondents, it is rather insignificant. This difference reflects the practice that cadet training in OECD countries is more likely to be sponsored by shipping companies with subsidies from the government. By contrast, in non-OECD, most students have to pay for the training themselves. In the context that boys are likely to have priority in education in some non-OECD countries (Shabaya and Konadu-Agyemang, 2004; Tuwor and Sossou, 2008), training fees can be daunting for girls especially if they are from poorer families.

Turnbull (2013) points out that recruitment and retention are the two most critical stages for women seafarers and that policy interventions should target the barriers in these two stages. The findings in this paper confirm this point. However, regarding which stage is more crucial, there is a difference between OECD and non-OECD respondents. Compared with OECD respondents, non-OECD respondents were more concerned about equality in the recruitment stage. The difference indicates that women seafarers from non-OECD countries are more likely to face barriers and challenges in the initial two stages of their careers.

Fourth, this paper also brings to the fore male voices. Seafaring is still a male-dominated profession, and working at sea is physically and mentally challenging. In this context, it is fair to say that understanding and support from male colleagues is necessary for women seafarers' career development and workforce diversity. It is important to take male seafarers onboard and understand their attitudes and perceptions. Surely men are aware of gender inequality in seafaring, but they are less aware of the specific barriers and challenges women face in their career cycle.

These findings have policy implications. In some OECD countries, as workplace inclusion and diversity policies have been effectively driving shipping companies to recruit as many women seafarers as they can find (Pike et al., 2017), equality in the recruitment stage has been improved. In this context, further policy interventions should target the retention and development stage as well as the attraction stage. By contrast, in non-OECD countries, policy interventions should pay serious attention to the recruitment stage. When a woman cadet successfully completed her studies despite all the challenges but could not find employment because of her gender, this not only is unfair to her but also serves to discourage other women from taking the training. Furthermore, policy interventions can also provide more support to encourage girls to take seafarer cadet training.

Needless to say, to achieve gender equality in seafaring, it is important to support women seafarers in every stage of their careers and enable more of them to complete their career cycles. Successful careers bring women into leadership roles where they would be more capable of promoting gender equality, making women's voices heard and adding women's perspectives in decision-making.

This paper also has limitations. The sample is not representative, and two major seafarer supplying countries, China and Russia, are not represented. While the missing of certain countries does not invalidate the findings for the countries in the sample, it would be ideal to include all the countries. Furthermore, the posts on the virtual wall were relatively brief and did not provide detailed explanations for the proposed changes. To overcome these limitations, future research with a more representative sample and capable of collecting in-depth data is needed to explore further the differences between different groups of stakeholders.

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