

Identifying critical challenges and government's responses for Filipino seafarers during the COVID-19 pandemic

Challenges and responses for seafarers

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Abstract

Purpose – The COVID-19 pandemic had a disastrous impact on a substantial number of Filipino seafarers. The government agencies played a crucial role in helping the seafarers. This paper aims to explore the challenges that the Filipino seafarers faced amid the pandemic and initially evaluate the Philippine government's countermeasures.

Design/methodology/approach – This paper reviewed academic literature and secondary data to identify and analyze the impact of the COVID-19 pandemic on seafarers. To identify the full range of policies and measures that have been adopted by the Philippines' government amid the pandemic to mitigate the impact on seafarers, an extensive survey of various sources was conducted. Furthermore, an analytic hierarchy process (AHP) survey was conducted from seafarers' perspective to analyze the priority of these government initiatives.

Findings – This study identifies four key challenges for seafarers during the pandemic: crew change crisis, healthcare shortages, certification and the derived problems including financial and mental health issues. Notably, mental health problems are prevalent but receive limited government attention. Despite the government's efforts to assist seafarers, the AHP survey identifies crew change assistance as the most crucial issue, possibly impacting all others.

Originality/value – This paper recognizes the significant information regarding aid in recovery management and provides much-needed assistance to seafarers during the pandemic and similar crisis situations. It bridges the research gaps and contributes knowledge to the government, stakeholders and various entities such as shipping companies, ship management firms and seafarers' manning agencies.

Keywords Impact of Covid-19 on seafarers, Philippine government policy, Crew change crisis, Healthcare shortage, Training and certification, Financial and mental issues

Paper type Research paper

1. Introduction

Amidst the global pandemic, seafarers are silent workers and economic front-liners who are responsible for world trade through global shipping. There are 1.9 million seafarers deployed on world's merchant ships who have demonstrated a great extent of dedication and professionalism and are considered to be critical workers for bringing commodities, goods and services to far-reaching areas across the globe during the height of government lockdown protocols to prevent the spread of disease in various ports (UNCTAD, 2021).



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However, seafarers become the most vulnerable workers during the pandemic since their condition has been exacerbated by the various and harsh government interventions to prevent the spread of the COVID-19 pandemic (Côté *et al.*, 2021). Seafarers therefore encountered a lot of challenges through mental health problems brought by fatigue, long overdue contracts, denial of shore-leaves and becoming stranded on board or in various ports upon returning to the country. On the other hand, those who are aspiring to get onboard employment have experienced unfavorable setbacks including issues of certification, unable to obtain passports and visas, restricted access to medical care and difficulty in getting shipboard employment. These all threaten the lives, careers, health conditions and families of these seafarers. Hence, there is a pressing need to implement protective measures and provide assistance to them during the pandemic (De Beukelaer, 2021).

The Philippines, being one of the top providers of seafarers globally recognizes the importance of this human resource. Prior to the pandemic, the average number of Filipino seafarers deployed across the globe was more than 400,000 manning the 50,000 merchant ships plying across the ocean waters. This is 25% of overall seafarers globally (MI News Network, 2021). The seafaring industry in the Philippines is crucial, as the Philippines also benefits from the revenues of the seafarer-related industry, with them contributing 21% of the total overseas Filipino workers' remittance in 2021 (Ismael, 2022). Besides, because the country is archipelagic in nature and comprises more than 7,640 islands, many Filipinos live in coastal communities and travel by seas, and some are natural born sailors. Therefore, seafaring as a career becomes essential in the Philippines.

Given that the COVID-19 pandemic had a disastrous impact on a substantial number of Filipino seafarers, and the government agencies played a crucial role in helping the seafarers (Stannard, 2020; Talabis *et al.*, 2021), it is worth taking the Philippines as a case to review the challenges that the seafarers face and to review and evaluate the Philippine government's responses to protect seafarers' welfare during a pandemic. Although the issue of the seafarers' well-being amid the pandemic has attracted increasing attention (e.g. Wong, 2021; Tang *et al.*, 2022), research specifically exploring the impact of the pandemic on Filipino seafarers and the effectiveness of the governmental remedies to promote their welfare is very limited. Hence, there is an urgent call for more systematic reviews and effective surveys conducted from the perspective of seafarers, aligning with their actual needs and experiences.

Therefore, this study aims to identify the critical challenges for the Filipino seafarers during the Covid-19 pandemic, and explore the Philippine government's responses in helping these seafarers. Furthermore, this study prioritizes the government's initiatives from the perspective of Filipino seafarers. The remaining part of this paper is organized as follows: based on the literature, Section 2 lays down the challenges of the pandemic for the seafarers, while Section 3 provides the government's relevant initiatives. Section 4 displays the methodology, and Section 5 shows the analytic hierarchy process (AHP) survey results. Section 6 presents the conclusion, recommendations, research limitations and directions for future research.

2. Challenges of the pandemic and its impact on the seafarers

Most studies on the impact of COVID-19 on seafarers often focused on specific aspects such as mental health, physical well-being, certification and financial concerns. Comprehensive research that systematically examines the various challenges faced by seafarers and corresponding government responses is scarce. Additionally, while Tang *et al.* (2022) employed a quantitative Importance-Performance Analysis (IPA) approach, most studies rely on qualitative methods, with few combining qualitative and quantitative approaches.

Moreover, existing research covers diverse populations such as Chinese (Qin *et al.*, 2021), Indonesian (Junus and Munandar, 2020), British (Devereux and Wadsworth, 2022) and

seafarers from various regions. However, there is a limited amount of research specifically addressing Filipino seafarers, a significant part of the global seafaring workforce. This study aims to address these research gaps, and the following two sections will review and analyze the existing literature.

2.1 Four main seafarers' issues emerged

Through the literature review, a wide range of issues amid COVID-19 pandemic that resulted in the impact on seafarers emerged, with four being particularly significant: the crew change crisis, healthcare shortage, certification and the derived issues including financial and mental health challenges. Within these four issues, there is a significant prevalence of mental health problems among seafarers, as 20 out of 35 papers or reports highlight this issue. Additionally, the crew change crisis itself wielded enormous influence in many aspects, which pose strong challenges to the other three issues (summarized in [Table 1](#)). The details of each issue are presented, respectively, in the following sections.

2.2 Crew change crisis

With the countries' measures to prevent the spread of COVID-19, the border/port closures, lockdowns, travel restrictions and other preventive measures have been in place. The crew were prohibited from disembarking in any port facilities and airports; therefore, seafarers were stocked onboard, even when shore leaves were suspended. Strict government regulations make the conduct of crew changes impossible and are inhumane and contrary to the letter and spirit of international regulations ([Dolumbia-Henry, 2020](#)).

Although international conventions, particularly the Maritime Labour Convention (MLC) 2006, outline the seafarer's maximum 11-month service period ([UNCTAD, 2021](#)), however, a few months after the spike of Covid-19, as of April 2020, over 400,000 seafarers who had finished their contracts were already stranded on their ships because of port closures and waiting for their government's response on repatriations ([IMO, 2020](#)). Some seafarers experienced extended contracts without shore leave, leading to physical and mental health problems ([Brooks and Greenberg, 2022](#)). Others were stuck in hotels without compensation and unable to return home ([IMO, 2020](#)). On the other hand, the country's harsh lockdowns also caused a dramatic effect on the lives of seafarers who were aspiring to get onboard. As reported by Maritime Industry Authority of the Philippines (MARINA), the total number of deployed seafarers in 2020 was significantly less than in 2019, with a decline of over 57%, due to the pandemic ([MARINA, 2022](#)).

2.3 Healthcare shortage

The healthcare facilities and healthcare workers have already been limited for seafarers in the country even prior to the COVID-19 pandemic ([The Lancet, 2021](#)). With the increasing number of COVID-19 transmissions, the healthcare service was overwhelmingly challenged in managing the mounting number of infected, quarantine measures and vaccinations including funding sources ([WHO, 2020](#)), which exacerbates and poses significant problems in providing healthcare services to seafarers, especially those who are onboard ([Sagaro et al., 2020](#); [The Lancet, 2021](#)). There is a high frequency of COVID-19 treatment concerns that were not able to reach the health institution as seafarers manifest symptoms of the virus while onboard at sea ([Kaptan and Olgun Kaptan, 2021](#)).

According to the New York Times vaccination tracker, the global average vaccination is 53 for every 100 people; however, in the case of the Philippines, it has an average of 18 vaccinations for every 100 seafarers, which is way below the global average rate ([UNCTAD, 2021](#)). [Han et al. \(2023\)](#) also mention that more than half of the world's 1.6 million seafarers

Challenges to seafarers	Main findings	Sources
Crew change crisis	<p>Long pandemic and border/port closures cause serious challenges on crew changeovers</p> <p>Being stranded on board for long time heightened the tensions among the crews, increase workload and anxiety</p> <p>Being stranded onboard denied seafarers' human rights from many aspects</p>	<p>Shan (2021), Galani (2021), Doumbia-Henry (2020), UNCTAD (2021), De Beukelaer (2021)</p> <p>Pauksztat <i>et al.</i> (2020), UNCTAD (2021)</p>
Healthcare shortage	<p>Limited health facilities onboard, and seafarers are not able to reach health institutions to treat symptoms</p>	<p>UNCTAD (2021), UNCTAD (2022), Slišković (2020), Pauksztat <i>et al.</i> (2022), Chua <i>et al.</i> (2022), Kaptan and Olgun-Kaptan (2021), Junus and Munandar (2020)</p> <p>The Lancet (2021), WHO (2020), Sagaro <i>et al.</i> (2020), Kaptan and Olgun-Kaptan (2021), UNCTAD (2021), UNCTAD (2022), Hebbar and Mukesh (2020)</p> <p>UNCTAD (2021), Han <i>et al.</i> (2023)</p>
Certification issues	<p>Low vaccination rate for seafarers, especially in developing countries</p> <p>Seafarer training centers were closed, disallowing seafarers from renewing certifications and joining ships</p> <p>Seafarers stocked and stranded onboard were prevented from renewing certificates, and attending training courses</p> <p>Introduction of a thorough certification attuned to mental health evaluation is important</p>	<p>De Beukelaer (2021), Chua <i>et al.</i> (2022)</p> <p>Silverio (2022), De Beukelaer (2021), UNCTAD (2021)</p> <p>Faremi and Heirs (2022)</p>
Derived issues-financial and mental health challenges	<p>Pandemic hampered the seafarer's recruitment process which influenced their job opportunities</p> <p>Financial uncertainties have had a substantial impact on seafarers; Infected seafarers stayed for a longer period at home causing income drop; Seafarers were not compensated for long-overdue/beyond contracts agreement terms</p> <p>High prevalence of mental health problem cases and associated risks among seafarers were reported, as being without shore leaves and stranded onboard</p>	<p>Tang (2022)</p> <p>Ciceri (2020), Slišković (2020), UNCTAD (2022)</p>
	<p>Seafarers' anxiety about getting infected onboard influenced their perception of job leading them to quit</p> <p>The crew change crisis impacted seafarers' working performance, and increased the risk of accidents</p>	<p>Wong (2021), Baygi <i>et al.</i> (2021), Battineni <i>et al.</i> (2021), Pauksztat <i>et al.</i> (2022), Tang <i>et al.</i> (2022), Qin <i>et al.</i> (2021), Lucas <i>et al.</i> (2021), Pesel <i>et al.</i> (2020), Macapagal (2020), Abila and Acejo (2021), Slišković (2020), Carrera-Arce <i>et al.</i> (2022), Devereux and Wadsworth (2022), Brooks and Greenberg (2022), Radic <i>et al.</i> (2020)</p> <p>Baygi <i>et al.</i> (2022), Erdem and Tutar (2022)</p> <p>Wong (2021), Shan (2021), UNCTAD (2021)</p>

Table 1.
Summary of challenges of the pandemic to seafarers

come from developing countries such as the Philippines, Indonesia and India, but the vaccination rate in these countries are far behind that in developed nations. They therefore suggest that all seafarers entering the port regardless of nationality should be vaccinated as soon as possible to reduce the risk of virus spread at the terminal as well as the community, and facilitate seafarers' shift-change leave.

2.4 Certification issues

Standard training and certification for seafarers are among the challenges of the country prior to the pandemic. This has even worsened by the COVID-19 pandemic situation. Seafarers mostly stocked in the capital and found themselves having difficulty in obtaining training, applications for assessments and examination among others (Silverio, 2022). Further, seafarers stranded onboard were prevented from submitting applications for renewal or revalidation of certificates. They were also unable to attend the training courses required for certification. On the other hand, stringent quarantine protocols that force most industries to cease the operation during those periods have also exacerbated the problems of seafarers' certification. Aspiring seafarers were challenged to get jobs since most of the training centers have also temporarily ceased operations, and both domestic and international travels were impacted. Accordingly, the expiration of related certificates among seafarers who had been stranded onboard beyond their maximum service period was significantly observed. All the returning seafarers, those who are onboard have extended their contracts, and seafarers finding new employment onboard have uncertainties on trainings and certifications (De Beukelaer, 2021).

Given this situation, Faremi and Heirs (2022) suggest that re-certification and mental wellness training for seafarers should be regarded as significant in the context of the pandemic-related new normal. Hence, the introduction of a thorough certification attuned to mental health evaluation is viewed as important and authorities and agencies concerned need to re-evaluate possible measures to be undertaken.

2.5 Derived issues – financial and mental health challenges

Seafarers are trying their best to get on board for financial reasons to support the basic needs of their families back home but the COVID-19 has exacerbated their worsening conditions. A study conducted by the global maritime charity Stella Maris presented that 69% of the respondents perceived that COVID-19 has severely impacted their financial conditions (Ciceri, 2020). Due to the stringent lockdown measures, the trainings and certifications for seafarers, and the recruitment process of various manning companies have been hampered (Tang, 2022). In addition, the fears of getting the virus while joining a ship or tested positive for the virus while in transit, delays in transportation, cancellation and quarantine/health protocols among others are the seafarers' dilemma on financial and health hardships that they might lose the opportunity of getting on board (Slišković, 2020). Although there are international instruments that ensure protecting seafarers' rights including the shipowner's roles of providing standard compensation and benefits, the long-overdue/beyond contracts agreement terms during the time of the pandemic were not properly compensated (Dombia-Henry, 2020).

The study of Pesel *et al.* (2020) shows that seafarers easily experience fatigue and stress associated with mental and physical risk factors while working on board. Crew change crisis exacerbates the mental health problem faced by seafarers (Tang *et al.*, 2022; Wong, 2021). The high prevalence of depression, anxiety and general psychiatric disorders among seafarers during COVID-19 was observed, because they were stranded onboard, restricted of shore leaves, lacked ship–shore interactions and had exceed beyond their required contract duration (Qin *et al.*, 2021; Lucas *et al.*, 2021; Pauksztat *et al.*, 2022; Wong, 2021). Such mental

health-related problems can lead to tensions on board with fellow seafarers (Pauksztat *et al.*, 2022), and suicidal thoughts and behavior among seafarers (Carrera-Arce *et al.*, 2022). Mental health issues could bring about serious maritime accidents while at sea because the safe operation of the ship relies on mentally sound and abled seafarers (UNCTAD, 2021). However, this problem has negatively impacted seafarers' working performance (Wong, 2021), and increased the risk of fatigue-related accidents when seafarers are stranded on board with a long-extended stay (Shan, 2021).

Moreover, seafarers' anxiety about getting infected with the novel coronavirus also influences their perception of job stress leading to easy burnout and exhibiting behavior to quit their job (Erdem and Tutar, 2022). Mental health-related problems have significantly affected seafarers' employment, non-work life on board (e.g. access to leisure activities and gym facilities) and access to supplies (Pauksztat *et al.*, 2020). The lack of shore leaves, and prolonged stay onboard cause serious impacts on not only seafarers' mental health but also physical and financial well-being (Slišković, 2020). In the study of Pesel *et al.* (2020), 50% of respondents replied that they did not feel safe doing their job in relation to the precautions done by shipping company which strongly indicates an immediate call to establish effective protection-related programs for seafarers during a pandemic.

3. Government initiatives and responses in the Philippines

In response to the needs of Filipino seafarers, the Philippine government introduced a range of initiatives and programs. These are detailed below, based on a review of literature and official documents.

3.1 Master policies in the Philippines

In order to deal with the pandemic of COVID-19, the Philippine President Duterte signed Proclamation 922 declaring a state of public health emergency throughout the country, and approved Proclamation 929 to declare the country under a state of calamity for the next six months. Likewise, Congress granted the President the special powers under "*Bayanihan*" (spirit of communal unity) to Heal as One-Act (Aguilar, 2020). This means that financial resources will be allocated for COVID-19 response, such as the accessibility of funds to Local Government Units (LGUs) to support their constituents by providing financial assistance to alleviate the financial burden they are facing due to stringent lockdowns (Republic Act 11494, 2020). These also help the LGUs to facilitate response time at the quickest and access to funds under emergency cases that would take lengthy process during normal situations.

The returning seafarers have frequently been stocked in Manila, where they were first quarantined but frequently unable to return to their families in the provinces. The Philippine government promised to address the looming seafarer's concern not only for its seafarers but also to disembark seafarers from other nationalities (Andrew, 2020). The MARINA also reiterated that the government is continuously serving the country's maritime professionals and committed to providing service and programs for the seafarers (MARINA, 2021). At the height of the port lockdowns and rising numbers of stranded seafarers across the globe, the Philippine government established the Inter-Agency Task Force for managing emerging and infectious diseases (IATF-MEID), which issued several issuances, mechanisms and action plans recognizing the plight of overseas Filipino workers, including seafarers.

3.2 Declare seafarers as "key workers" and provide "Green Lane" to facilitate their travels

As the looming crises of seafarers have been magnified globally brought about by the crew-change and humanitarian crises with its irreversible repercussion in industry, concerns have been made by the relevant international organizations and business associations. The

International Maritime Organization (IMO), the International Labor Organization (ILO), the International Transport Workers Federation (ITF) and the United Nations Conference on Trade and Development (UNCTAD) have urged member countries around the world to designate seafarers and other maritime workers as “key workers” and accept their identity documents as proof of their status (UNCTAD, 2021).

In response to the above call of IMO, the Philippines through its IATF-MEID and maritime industry passed a resolution designating seafarers and maritime workers as “Key Workers” and authorized persons (IMO, 2020). The Philippines government issued the Joint Circular No. 1 on July 2, 2020 entitled *Guidelines for the Establishment of the Philippine Green Lane to Facilitate the Speedy and Safe Travel of Seafarers*, including their safe and swift disembarkation, and crew changes during the COVID-19 pandemic. These guidelines comprise (1) minimum standards and procedures which shall be observed by seafarers and all other entities involved in facilitating the process of travel for the purpose of ship crew changes and repatriation. (2) standards and procedures for outbound and inbound Filipino and foreign seafarers, including their transit to and from the airport and ship.

The recent amendments to the protocol also allow foreign seafarers to disembark and undergo COVID-19 testing in separate facility outside the vessel and stay at a government-accredited facility or hotel, subject to compliance with local health and safety protocols.

3.3 One-stop shop for repatriation and deployment of seafarers

In further response to IMO’s call, the government instituted a one-stop shop for repatriation and deployment of seafarers. This is a whole of maritime approach to make a crew change possible in the country headed by the Department of Transportation (DOTr) Maritime Sector composed of the MARINA, Philippine Ports Authority (PPA), Cebu Port Authority (CPA) and the Philippine Coast Guard (PCG). This program has been at the forefront of initiating crew change operations for seafarers who have been affected by the COVID-19 pandemic. This one-stop-shop also tapped and sought the non-governmental organizations (e.g. ALMA, MARINO Partylist and the Associated Marine Officers and Seamen’s Union of the Philippines), ship owners and manning agencies in assisting thousands of seafarers to disembark their vessels and safely bring them home during repatriation. The assistance mainly covered facilitating the crew change and returning home, providing free quarantine facilities, offering necessary and priority medical assistance and providing financial assistance to returning and displaced seafarers. In addition, DOTr has likewise issued the *Philippine Protocol on Crew Change and Repatriation of Seafarers*, which contains the detailed procedures and health and safety protocols for repatriation and the conduct of crew change, both in domestic and international ports (MARINA, 2020).

3.4 Balik Probinsya Program

It is a government-coordinated approach designed for returning overseas Filipino workers including seafarers. This program ensures unhampered travel after undergoing necessary health protocols for returning overseas Filipino workers, including seafarers, to their home provinces. The government provides hotels, transfers, coordination with LGUs to provide cash assistance, grocery packs and food packs while proceeding to their home provinces. The *Hatid Tulong Program* is also a government initiative aiding locally stranded individuals during stringent lockdown in the national capital region. These are designed for those who want to go back to their hometown after being stranded in the National Capital Region (NCR) (Kabagani, 2020).

3.5 Task Force COVID Shield

This is composed of uniformed and law enforcement agencies on providing control, security and monitoring of the movement of people in places with heightened security quarantine measures. This ensures that seafarers are given priority access to the ingress and egress of their locality. This also facilitates the unhampered movement of seafarers by facilitating and giving them appropriate security clearances and assisting them with all their essential needs (Servallos, 2020).

3.6 Healthcare and vaccination efforts

Along with the Philippine government's initiatives and intervention to flatten the curb of infection, the World Bank supported the country's efforts to increase vaccination, enhance its health system and mitigate the pandemic's impact, particularly on the poor and most vulnerable – including seafarers. The project covered the purchase of emergency medical/laboratory equipment and supplies, ambulances and civil works, including the construction of negative pressure chambers for frontline health facilities, in addition to the procurement and deployment of 33 million doses of vaccine. Seafarers were one of the priority groups to receive the Covid-19 vaccines in order for them to be readily employed by shipping companies because of their full vaccination status (World Bank, 2022).

Additionally, the Overseas Workers Welfare Administration (OWWA) in collaboration with Philippine Health Insurance Corporation (PhilHealth) offers a supplemental medical assistance program called MEDplus. Overseas Filipino workers, including seafarers, may avail of financial assistance covering the amount of Php 50,000 for workers who have infected and were hospitalized either in the Philippines or abroad. This is a supplemental medical health insurance for each OWWA member and active PhilHealth member on top of their regular health insurance benefits (OWWA, 2023).

3.7 Facilitating certification issues

At the height of the pandemic's lockdown measures, the MARINA issued a memorandum policy that all expiring STCW certificates issued were to be extended. The validity of these expiring certificates was extended for another year from the date of expiry of the certificates without the need to file for an application of extension at the MARINA. These are for those seafarers who are currently onboard.

On the other hand, MARINA released guidelines for the conduct of training, examination and assessments and issuance of STCW certificates, as well as for Seafarers Record Book and other manpower development-related issuances amidst the implementation of government lockdown (MARINA, 2021). This includes the issuance of window schedules for applications for online appointment and registration, and processing of documents among others. MARINA has also issued additional guidelines for Maritime Training Institutions (MTIs) and Assessment Centers on the conduct of training programs via "Blended Learning" system, which is a combination of classroom and online trainings, as a response to the need to provide a platform for the seafarers to complete their required training amidst the pandemic.

3.8 Employment and financial security, educational assistance and livelihood programs

In a resolution issued by the Department of Labor and Employment, it assured that a seafarer who has already signed an employment contract but cannot be deployed from the point of hire due to COVID-19 related reasons shall be provided with accommodation and food at the expense of the principal/employer until the seafarer is deployed or returned home, and even until the contract is canceled. Also, a seafarer who was deployed but became stranded during

transit shall be granted basic salary, lodging, food and medical benefits at the expense of the principal/employer until the seafarer rejoins the vessel. Similarly, the principal/employer was asked to give the same support and benefits to seafarers (DOLE, 2020).

The government introduced an emergency employment program (EEE) or integrated livelihood emergency employment program for those who were left unemployed during the Covid-19 lockdowns. Filipino seafarers who were seeking shipboard employment but were caught stranded may avail of the program. An equally significant program is the OWWA's bridging program for those bachelor's degree graduates who wish to become seafarers. This is a scholarship through a financial grant that is qualified dependents of Overseas Filipino Workers who wish to continue their maritime education (OWWA, 2023).

3.9 Addressing mental health concerns

With the alarming statistical data on seafarers' mental health, aside from the services and programs provided in coordination with all the maritime agencies and non-governmental organizations, the maritime sector in the country is exerting its efforts in addressing this problem. Collaborated with some of the most respected and experienced mental health experts in different maritime organizations like AMOSUP's Mental Health Advocate; the Philippine Transmarine Carriers, Inc. (PTC), the International Seafarers' Welfare and Assistance (ISWAN); Happiness at Sea; Well at Sea and Professional Certified Life and Business Coach developed programs and services like conducting a webinar on Seafarers' Mental Health. This raised awareness of seafarers' mental health and provided alternative best practices while onboard (ISWAN, 2021).

4. Research method

This research employs a mixed-method approach, encompassing both qualitative and quantitative methods. Narrative literature review was applied to identify the challenges that seafarers faced amid the pandemic. This study used the popular research data base "Proquest" as the tool plus "Google Scholar" to search the academic literature filtered with full content and without time interval. The search was conducted by using the combination of the keywords "Impact of COVID-19 to seafarers", and "COVID-19 impact to seafarers in the Philippines". There is total 218 studies were emerged initially. After reviewing the abstracts of the studies obtained from the initial screening and excluding articles related to fishing vessel crew members, 35 papers directly relevant to our research topic have been selected for analysis. Additionally, the *Review of maritime transport 2021 and 2022* published by UNCTAD were included, as it is the annual flagship report providing extensive collection of statistics from maritime transport and containing a special chapter or section to disclose the COVID-19 seafarer crisis. On the other hand, an extensive review of various sources (e.g. reports, documents, issuances) was conducted to recognize the policies and measures that have been adopted by the Philippines' government and NGOs amid the pandemic to mitigate the impact on seafarers.

The above information collected is analyzed using thematic analysis, which involves a subjective interpretation of the content of text data through a systematic classification process of coding and identifying themes or patterns. Counting the frequency of the occurrence of certain incidents, words, or phrases is one method used to identify a theme (Bryman, 2012). Moreover, multiple coders and team-based work were used to facilitate coding reliability by providing checks on individual biases and variations in interpretation (Guest *et al.*, 2012).

Furthermore, to better prioritize the various government initiatives mentioned above, we conducted an analytic hierarchy process (AHP) survey, considering the perspective of

seafarers and involving experienced Filipino seafarers as well as relevant experts. AHP is a mathematical method used to ascertain criterion weights through pairwise comparisons of two criteria's relative importance (Saaty, 1987). It is the most practical and fundamental choice for the purpose of this study, facilitating effective group decision-making when ranking numerous decision factors (Kartal et al., 2016). While some scholars have critiqued AHP for potential cognitive overload and inconsistency in judgment, these concerns can be mitigated. By creating a logical hierarchy, clustering criteria effectively and maintaining a manageable number of criteria for pairwise comparisons, these issues can be addressed. Additionally, maintaining the consistency index (CI) and consistency ratio (CR) of less than 0.1 further ensures the method's reliability (Wang et al., 2020; Haddad et al., 2020). Following the principles outlined above, this study developed the AHP structure, comprising four primary criteria and 16 sub-criteria based on thematic analysis of the initiatives undertaken by the Philippine government as detailed in Section 3 (see Figure 1).

The Saaty nine-point scale was utilized to measure the experts' perceptions of what was relatively "important" and "unimportant". The AHP survey was conducted in a face-to-face manner to ensure participants had a thorough understanding of the questionnaire. We selected 20 participants using convenience sampling, with a prerequisite being their possession of extensive knowledge and experience to comprehend the challenges faced by Filipino seafarers during the COVID-19 pandemic. The CI is employed to assess the consistency of experts' judgments (Saaty, 1987). Furthermore, the CR is utilized to determine how a given matrix compares to a random matrix in relation to the CI, as depicted in equations (1) and (2), where it presents the maximum eigenvalue of the positive reciprocal matrix:

$$CI = \frac{\theta_{max} - n}{n - 1} \tag{1}$$

$$CR = \frac{CI}{RI} \tag{2}$$

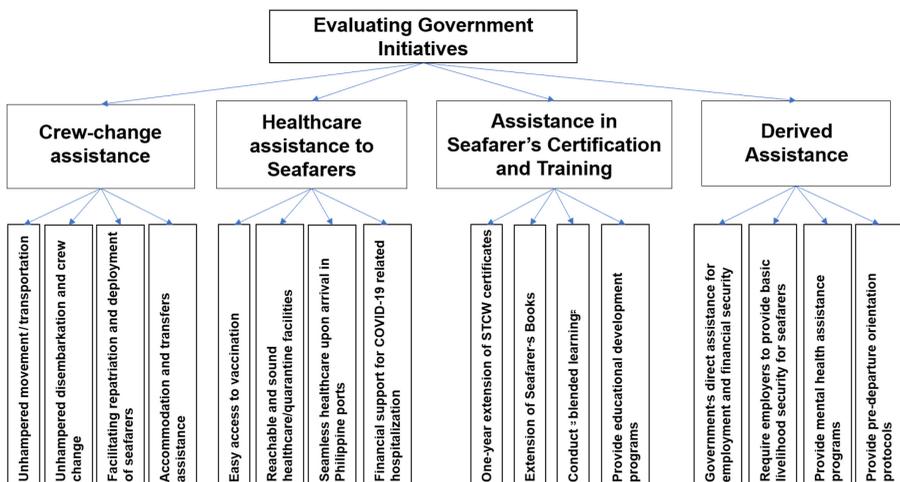


Figure 1.
AHP structure

Source(s): Created by the authors based on literature and official document

5. AHP analysis

Among the 20 participants in the AHP survey, 11 of them were management-level seafarers or training center experts, and nine of them were lower-level crew members. A total of 60% of the participants had more than 11 years of work experience (Table 2). The CI value for each participant was below 0.1, indicating that each expert's judgment is consistent.

Table 3 displays the results of the AHP analysis. All consistency ratio (CR) values are less than 0.1, passing the consistency test. Based on the local weights of each criterion and sub-criteria, the results indicate that crew change assistance (0.379) is the most crucial criterion, followed by healthcare assistance to seafarers (0.284), assistance for derived needs (0.171) and assistance in seafarer's certification and training (0.167). The sub-criteria identified as the most significant within each category are as follows: unhampered movement/transportation (0.337) for crew change assistance, financial support for COVID-19 related hospitalization (0.383) for healthcare assistance, providing mental health assistance programs (0.393) for addressing derived needs and a one-year extension of STCW certificates (0.379) for seafarer's training and certification assistance. Based on the global weights of the sub-criteria, calculated by multiplying their local weights with those of their corresponding upper-level criteria, the top five most significant sub-criteria are as follows: unhampered movement/transportation (0.1277), financial support for COVID-19-related hospitalization (0.1088), seamless healthcare upon arrival in Philippine ports (0.1031), unhampered disembarkation and crew change (0.1004) and accommodation and transfer assistance (0.0815). There is no notable difference in the outcomes between management-level and lower-level seafarers. Both groups prioritize crew change assistance as the most critical criterion, with healthcare assistance for seafarers coming next in importance.

The outcomes of the AHP analysis validate the literature's assertion that crew change issues wield significant influence and present substantial challenges when compared to other topics discussed in prior studies (e.g. UNCTAD, 2021; Pauksztat *et al.*, 2022). Despite the frequent mention of mental health concerns in the literature (e.g. Wong, 2021; Shan, 2021), the level of importance assigned to mental health-related support ranks relatively lower, specifically at positions 7 (providing mental health assistance programs) and 16 (establishing pre-departure orientation protocols) in the AHP analysis. This underscores that mental health issues are derivative concerns, best addressed through the resolution of underlying issues

Samples	Range	Frequency	(%)
Profession	Management level	10	50
	Seafarer	9	45
	Academe, training center for seafarers	1	5
	Sub-total	20	100
Age	Under 25	1	5
	26–29	3	15
	30 and above	16	80
	Sub-total	20	100
Gender	Male	20	100
	Female	0	0
	Sub-total	20	100
No. of years serving in the industry	0–5 years	2	10
	5–10 years	6	30
	11 years and over	12	60
	Sub-total	20	100

Source(s): Table by authors

Table 2.
Profiles of the respondents

Criteria	1st tier local weights	CR	Sub-criteria	2nd tier local weights	Global weights	Rank
Crew-change assistance	0.379	0.011	Unhampered movement/ transportation	0.337	0.127723	1
			Unhampered disembarkation and crew change	0.265	0.100435	4
			Facilitating repatriation and deployment of seafarers	0.184	0.069736	6
Healthcare assistance to seafarers	0.284	0.00061	Accommodation and transfers assistance	0.215	0.081485	5
			Easy access to vaccination	0.137	0.038908	11
			Reachable and sound healthcare/quarantine facilities	0.118	0.033512	12
			Seamless healthcare upon arrival in Philippine ports	0.363	0.103092	3
Assistance in seafarer's certification and training	0.167	0.032	Financial support for COVID-19-related hospitalization	0.383	0.108772	2
			One-year extension of STCW certificates	0.379	0.063293	8
			Extension of seafarer's books	0.304	0.050768	10
			Conduct "blended learning"	0.149	0.024883	15
Assistance for derived needs	0.171	0.027	Provide educational development programs	0.167	0.027889	13
			Government's direct assistance for employment and financial security	0.344	0.058824	9
			Require employers to provide basic livelihood security for seafarers	0.146	0.024966	14
			Provide mental health assistance programs	0.393	0.067203	7
			Provide pre-departure orientation protocols	0.116	0.019836	16

Table 3.
AHP results

Source(s): Table by authors

such as crew change crises, healthcare assistance and seafarer's certification and training support.

6. Conclusion and recommendations

6.1 Conclusion

This study initially identifies four primary concerns among seafarers based on the existing literature. These concerns encompass the crew change crisis, healthcare shortages, training as well as certification and the derived problems including financial and mental health issues. The global closure of borders and ports during the pandemic has made crew changes extremely challenging, resulting in a chaotic situation where seafarers find themselves stranded, whether onboard or onshore. This ultimately leads to other issues for seafarers. The literature shows that the mental health problems are notably prevalent, however, the documents reviewed suggest that the government has taken limited proactive measures to address this issue. Secondly, this study explored the various initiatives undertaken by the Philippine Government to assist seafarers during the pandemic. Furthermore, the AHP survey

revealed that, from the perspective of seafarers, the government should prioritize efforts in the areas of crew change and healthcare assistance. Specifically, the top five sub-criteria include unhampered movement/transportation, financial support for COVID-19-related hospitalization, seamless healthcare upon arrival in Philippine ports, unhampered disembarkation as well as crew change and accommodation plus transfer assistance.

According to the AHP results, the Philippine Government's measures, such as designating seafarers as "Key Workers" and establishing a "Green Lane," the one-stop shop for repatriation and deployment of seafarers, the Balik Probinsya Program and the Task Force COVID Shield, align with the requirements to facilitate crew changes. Meanwhile, healthcare and vaccination efforts align with the need for healthcare assistance among crew members. On the other hand, despite being a derived issue, mental health problems require increased visibility and attention from all sectors overseeing seafarers. This can be accomplished by promoting awareness of mental health and developing relevant educational policies and supportive programs (Abila and Acejo, 2021). In the long run, it is advisable to establish a dedicated national-level agency, mandated by law, to oversee seafarer affairs. The pandemic has highlighted the complexity of managing crew changes due to the involvement of numerous agencies. Having an efficient mechanism for providing assistance and delivering services and benefits to seafarers is crucial, especially during times of crisis. Establishing a dedicated funding source for seafarers that is readily accessible when needed, is also recommended. This funding source could be sponsored by either the government or the private sector.

This research provides crucial insights for government agencies, non-governmental organizations and other stakeholders, including shipping companies, ship management firms and manning agencies. They enhance understanding of seafarers' needs, aid recovery efforts and enable essential support during pandemics and similar crises, also addressing research gaps.

6.2 Limitations and future research

The study cannot conclusively determine the long-term effects of government programs on Filipino seafarers during the COVID-19 pandemic due to limited data availability, especially regarding training and certification programs for returning seafarers, new applicants seeking employment at sea and financial assistance. Further research and monitoring efforts should aim to gather more data in this regard and employ statistical approaches to assess the effectiveness of these government programs in meeting the needs of seafarers.

In addition, this paper specifically focuses on the context of the COVID-19 pandemic's impact on Filipino seafarers and the Philippine government's responses. Other major seafarer-supplying countries, for example, the Russian Federation, Indonesia, China and India (UNCTAD, 2021), may develop very different results and are worth exploring further. Furthermore, in addition to government agencies and NGOs, the support provided by other stakeholders such as shipping companies, as well as family and colleagues, may also play a crucial role in helping seafarers mitigate the impact of the COVID-19 pandemic. Further research from these perspectives is needed.

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