

In-Country Situationers of the Philippine Contributions to the Seafarer's Global Labor Market

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Abstract

Global indicators suggest that the demand for seafarers will continue to increase in the succeeding years due to the foreseen expansion of international trades across the different economies of the world. The role of the Philippines being one of the top producing countries of both ratings and officers is salient in addressing this demand in the labor market. In this study, the different in-country situationers relative to the capacity of the Philippines to supply the expected need of seafarers are examined. This study utilized the reports from international organizations; the data generated, and issuances by the Philippine government agencies responsible for regulating and supervising the maritime education and deployment of seafarers in the country. This study establishes that all indicators show that there is an annual decrease in the number of seafarers being produced by the Philippines commencing from the number of individuals who finish a maritime degree to the number of maritime officers who passed the required theoretical examination.

Keywords: Seafarer's global labor market, Supply and demand of ratings, Supply and demand of officers, Philippine seafarers, In-country situationers on Philippine seafarers

Introduction

Maritime activities specifically maritime transport assumes significant contributions to the global economy. It is responsible for the transport of crude oil and different types of cargoes from and to the different economies of the world (United Nations, 2020). It is also a salient factor in the economic growth of the European Union (Fratila *et al.*, 2021). It is responsible for the growth of the United States' national gross domestic product (Link-Wills, 2020). It is even highly important in the worldwide socioeconomic programs designed for the global COVID-19 pandemic recovery (United Nations, 2021).

Amidst the importance of maritime transport to the world's economy, the Philippines plays a significant role in ensuring the success of this global industry. This is because majority of the ratings and a large proportion of officers responsible for the safe carriage of approximately 90% of the world's trade are supplied by the Philippines (International Chamber of Shipping, 2022). In 2019 for example, the Philippines is responsible for answering a quarter of the world's demand on seafarers (Simbulan, 2020).

In consideration of the latest forecasts categorically stating that the need for officers and ratings will steadily increase in the next years (The Maritime Post Admin, 2020; Hellenic Shipping News, 2021; Nautilus International, 2020), it is therefore essential that salient statistics pertaining to the training and pre-deployment activities of the Philippine seafarers, a critical aspect of the labor supply and demand paradigm, be explored, presented, and discussed. It is also equally important that municipal laws and policies promulgated in relation with the pre-deployment activities of the Philippine seafarers be analyzed. It must be understood that while international standards are in

place, the Philippine government is still primarily responsible in ensuring that these standards are properly implemented within its jurisdiction.

Premises laid, this paper presents the status of the global supply and demand of seafarers. It also discusses the different statistics relative to the land base trainings of the maritime college students vis-à-vis the existing regulations governing the maritime education in the Philippines. Further, it explores the present statistics pertaining to the pre-deployment activities of the ratings and officers and the government regulations governing the same.

Materials and Methods

This paper analyzes the different statistics pertaining to the global trends on seafarer's labor market, the contribution of the Philippines to these global demands, the municipal statutes promulgated, and rules issued by government agencies in regulating the trainings and pre-deployment activities of the Philippine seafarers. The data on the global supply and demand of seafarers were drawn from the reports of reputable international organizations. As to the statistics specifically showing the different in-country situationers relative to the collegiate trainings and pre-deployment activities of the Philippine seafarers, they were derived from the official reports generated and published by government institutions responsible for monitoring and promoting the maritime industry in the country. Moreover, the pertinent domestic statutes stipulating the various regulations required by law pertaining to the Philippine seafarers were accessed through the official websites of the Government of the Republic of the Philippines. The first stage of the analysis involved the data on the seafarers' global labor market trends. The second stage looked into the statistics involving the collegiate formal education of the Philippine seafarers and the Philippine laws and regulations governing it. The final stage of the analysis focused on the activities of the Philippine seafarers between post-graduation from their collegiate degree and deployment, and the different government issuances relevant to these activities.

Results and Discussion

Global Trends on the Seafarers' Labor Market

The demand of seafarers around the world is constantly being challenged by low supply. In the recent report issued by the Baltic and International Maritime Council (BIMCO), it highlighted that although the present supply exceeds the demand for the ratings, the same is not true with regards to the officers. Accordingly, the supply of Standards of Training, Certification and Watch-keeping (SCTW) certified officers was short by 26,240 individuals from the actual demand in 2021. The gap is expected to balloon by 2026 when the demand of officers will reach to as high as 89,510 personnel (Srinivasan, 2021). The same result was reported by Drewry emphasizing that on the said year, the deficit would amount to around 5% less than the supply, the highest since 2013 (Buitendijk, 2021). This is despite of the fact that there is already a 10.8% increase in the supply of officers since 2015, and a reduced turnover of officers from 8% to 6% (Srinivasan, 2021).

Although the gap was foreseen in the case of officers, it was however reported that not all types of officers will record a high demand. Specifically, in terms of expertise, the shortage may be largely felt among those possessing technical experiences most specially those who assume posts in the management levels. In terms of sectors, it was also predicted that the offshore and tanker sectors, will experience the shortage of management level deck officers the most (Srinivasan, 2021).

Interestingly, it was further reported that the increase in the demand of officers is projected to occur despite of the growing automation in the maritime industry. It was recognized that the developing technologies might cause the reduction of manpower in maritime transport (UNCTAD, 2020). It is even expected that automation may cause 22% reduction of the seafarer's demand by

2040 (Nautilus International, 2019). Specifically, the predictions showed that the low and middle-skilled jobs which include cargo handlers, crane operators, dockers, including the ageing or higher-waged employees will be subjected more to job redundancy caused by automation (UNCTAD, 2020). However, it was also equally viewed that the impact of automation may be tempered by the expanding activities in the international trade such that there would still be a high demand on seafarers even if automation will be implemented in the maritime industry (UNCTAD, 2020; Nautilus International, 2020). Specifically, the increasing man-berth ratio, and continued growth of fleets are foreseen factors which would cause the increase of the needs for officers (Buitendijk, 2021).

The rising demand on seafarers is aggravated by the fact that most of those who chose to leave the maritime industry are senior officers or those who already have considerable experiences on board ships. A Singaporean based tanker operator for example reported that around 20% of its total 1,000 seafarers have indicated that they are no longer interested to go back to their ships. Also, the Anglo-Eastern Univan Group claimed that 5% of its 30,000 seafarers have been considering the option of refusing to sign a subsequent contract. It was reported that most of those who are leaving the jobs onboard ships are senior and experienced crewmembers (Kinyua, 2021).

In the case of the global supply of seafarers on the other hand, there are countries identified as consistently providing the largest number of seafarers in the world. In a 2015 report it was indicated that the Philippines, China, Indonesia, Russian Federation, and Ukraine were the top five suppliers of seafarers in merchant ships (Kumar, 2018). As could be gleaned in Table 1, China is the largest supplier of seafarers in the world with 243,635 seafarers deployed in 2015. This comprises around 14.79% of the total world population of deployed seafarers on the said year. It was followed by the Philippines with 215,500 (13.08%), Indonesia with 143,702 (8.72%), Russian Federation with 97,061 (5.89%), and Ukraine with 69,000 (4.19%) deployed seafarers around the world. In terms of deployed officers in 2015, China was still the top producing country followed by the Philippines, Indonesia, Russian Federation, and Ukraine. As to the ratings, the Philippines deployed more than China in 2015 making it the largest producer of ratings in the world.

Table 1. Number of seafarers supplied by top producing countries and its percentage as compared to the total world supply, 2015 and 2021

Country	2015 ¹			2021 ¹		
	Officers	Ratings	Total	Officers	Ratings	Total
Philippines	72,500 (9.37%)	143,000 (16.37%)	215,500 (13.08%)	81,090 (9.46%)	171,303 (16.55%)	252,393 (13.33%)
China	101,600 (13.13%)	142,035 (16.26%)	243,635 (14.79%)	69,364 (5.97%)	64,930 (6.27%)	134,294 (7.10%)
Indonesia	51,237 (6.62%) ²	92,465 (10.59%) ²	143,702 (8.72%) ²	51,237 (5.97%)	92,465 (8.93%)	143,702 (7.59%)
Russian Federation	47,972 (6.20%)	49,809 (5.62%)	97,061 (5.89%)	71,652 (8.36%)	126,471 (12.12%)	198,123 (10.47%)
Ukraine	39,000 (5.04%)	30,000 (3.43%)	69,000 (4.19%)	47,059 (5.49%)	29,383 (2.84%)	76,442 (4.04%)

¹Estimated based on survey response or demand and adjusted by BIMCO/ICS.

²Estimated by BIMCO/ICS to be the same figure as in 2015.

Source: UNCTAD, United Nations (2021) (United Nations, 2021)

The statistics on the number of supplied seafarers per country assumed a different paradigm in 2021. As compared with 2015, China produced fewer seafarers in 2021. It was able to deploy 134,294 total seafarers only or around 7.10% of the total world supply. This is lower as compared with the Philippines which was able to deploy a total of 252,393 seafarers or around 13.33% of the world's supply on the same year. This makes the Philippines the top supplier of ratings and officers as of the latest statistics. In 2021, the Philippines produced 81,090 or around 9.46%, and 171,303 or 16.55% of the world's supply of officers and ratings respectively.

Demographics of the Seafarers' Land Based Trainings in the Philippines

As earlier stated, the Philippines is one of the largest providers of seafarers in the world. The formal trainings of seafarers in the Philippine maritime academies are primarily supervised by the Commission on Higher Education (CHED), and the Maritime Industry Authority (MARINA). As to the deployment of overseas seafarers, the MARINA and the Philippine Overseas Employment Agency (POEA) are the two government offices primarily responsible for the regulation of this activity. Stated differently, the MARINA is the Philippine government agency exercising supervisory powers from the pre-deployment activities of seafarers which include their formal education to their overseas deployment. MARINA collaborates with the CHED in regulating the formal education of the seafarers and with the POEA in supervising their pre-deployment activities and in regulating other matters on labor standards and labor relations. All these entities are government agencies deriving their powers and authorities from statutes promulgated by the Philippine Congress.

The Philippine seafarers' pre-employment formal education is predominantly enclosed and completed either within any of the two four-year degree programs. These degree programs which are supervised by the CHED and MARINA are the Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE). As defined by the CHED Memorandum Order No. 67, series of 2017 (Commission on Higher Education, 2017), the BSMT program is designed to prepare the students on the study of navigation, procedure on cargo handling and stowage, controlling the safe operation, and care of persons on board the ship. Comparatively, the same issuance stipulates that the BSMarE program focuses on the study of the operation and maintenance of the marine propulsion systems and its respective auxiliaries, and care of persons on board the ship. It also focuses on electrical, electronics and control engineering. Moreover, both programs were designed in compliance with the 1978 SCTW Convention as amended, and other international and domestic rules and regulations (MARINA, 2018).

It is noteworthy that despite of the fact that the Philippines is one of the largest producers of seafarers, and that there has been a growing demand for both ratings and officers in the global labor market, the population of those graduating from maritime training centers continues to decline from 2015 to 2019. As could be gleaned in Table 2, there were 20,040 individuals who graduated with a maritime degree in 2015. This accounts to around 3.2% of the total number of graduates on the same year. The said number decreased in 2016 where only 18,322 (2.8%) of the total number of graduates in the Philippines finished a maritime related degree. Although the downward trend was altered in 2017 where 21,561 individuals finished a maritime degree, it could however be seen that when compared to the percentage of graduates in 2015 (3.2%), the 2017 (3.0%) data is still lower. This means that although there were more graduates in 2017 as compared to 2015, when viewed in terms of the proportion of the maritime graduates as compared to the other disciplines, the percentage of the 2015 maritime graduates was still higher than 2017. The decline of maritime graduates continued such that by 2019, only 16,871 individuals had finished a maritime related degree or only around 2.1% of the total number of graduates in the Philippines for that year.

The interests of students in taking a maritime degree and subsequently the number of graduates in the said discipline are influenced by several factors. In the case of the Philippines, it was

found out in the study of Pesigan, Gonzales and Laguador (2019) involving 150 Filipino students, that the primary reason of the students' choice to acquire a maritime degree is the prospect of working overseas. This same reason puts the maritime discipline in disadvantage for as discussed by Maxwell, with the growing critical shortage of manpower in all trade sectors around the world and consequently the opening of the foreign workers programs of developed economies such that of Japan and Germany, the shipping industry must necessarily compete now with the other global careers. Those Filipino students whose career prospect is to work overseas have more options now in sectors other than the maritime industry. Maxwell continued that some aspects of the job such as lack of internet connectivity on board, and the threat to the profession of automation pulls back individuals from choosing a career in the maritime industry (Maxwell, 2019).

Table 2. Population of higher education graduates in the Philippines, by discipline, Academic Years 2014-2015 to 2018-2019

Discipline	2015		2016		2017		2018		2019	
	N	%*	N	%*	N	%*	N	%*	N	%*
Maritime	20,040	3.2	18,322	2.8	21,561	3.0	17,634	2.3	16,871	2.1
Other disciplines*	612,036	96.8	627,651	97.2	681,766	97	733,676	97.7	779,705	97.9
Total	632,076	100.0	645,973	100.0	703,327	100.0	751,310	100.0	796,576	100.0

* Author's own calculation.

Source: Commission on Higher Education (CHED), Republic of the Philippines (2020) (Commission on Higher Education, 2020)

Table 3. The Number of Accredited Maritime Education and Training Institutions (METIs), by Region, Philippines, 2016-2020

Region	2016	2017	2018	2019	2020
National Capital Region (NCR)	79	71	61	51	44
Cordillera Administrative Region (CAR)	0	0	0	0	0
I (Ilocos)	2	2	2	2	2
II (Cagayan Valley)	0	0	0	0	0
III (Central Luzon)	2	2	2	3	4
IV	10	8	9	8	8
V (Bicol)	1	1	0	2	2
VI (Western Visayas)	11	13	13	12	9
VII (Central Visayas)	13	14	14	15	15
VIII (Eastern Visayas)	2	2	2	2	2
IX (Zamboanga Peninsula)	1	1	1	1	1
X (Northern Mindanao)	3	2	3	3	3
XI (Davao)	8	7	5	1	1
XII (SOCCSKSARGEN)	2	2	1	1	1
XIII (Caraga)	1	1	0	0	0
Bangsamoro Autonomous Region in Muslim Mindanao	0	0	0	0	0
Philippines	135	126	113	105	95

Source: Maritime Industry Authority (MARINA), Republic of the Philippines (2020) (MARINA, 2020)

The declining number of seafarers graduating from their formal education is coupled with the declining number of Maritime Education and Training Institutions (METIs) in the country. As could be seen in Table 3, there was a decline of METIs offering either BSMT or BSMarE or both in the Philippines from 2016 to 2020. From a total of 135 METIs in 2016, there were only 95 institutions left in 2020. The bulk of these institutions were consistently confined in the National Capital Region (NCR) of the Philippines where 79 METIs in NCR were accredited, and 44 METIs were accredited, the highest as compared to the all the regions in the Philippines both in 2016 and 2020 respectively. It could however be gleaned that even in the NCR, the decline of the number of METIs was apparent. The same is true in Region XI where a major city found in the southern part of the Philippines is located. In 2016, it had eight (8) accredited METIs however it was hugely reduced into just one (1) in 2020.

Critical to the accreditation and continued operations of the maritime schools in the country are their compliance with the international standards relative to STCW. In a recent report, it was divulged that around 61 of the country's METIs were being considered for closure by the Philippine authorities due to their non-compliance with the STCW (Espedido, 2020). This is a salient move on the part of the government authorities as non-compliance with the international standards may jeopardize the employability of the Philippine seafarers. To illustrate, in early 2021 for example, the European Commission assessed the Philippines' training and certification system. Failure on the part of the Philippine METIs to pass the audit would lead to the non-recognition of the EU Member States of the certifications issued by the Philippine maritime schools (Mabasa, 2021).

Even the number of accredited instructors, assessors, and supervisors of the METIs and other training centers had also been experiencing a steep decline. In compliance with Republic Act 10635, a domestic Philippine Law, and the provisions of the 1978 SCTW Convention, the authority to regulate the accreditation of instructors, assessors, and supervisors is lodged before the Philippine Maritime Industry Authority (MARINA). Only those who were accredited by MARINA may be allowed to serve as instructors or supervisors in the METIs (Link-Wills, 2020).

As shown in Figure 1, there were 12,663 accredited instructors in 2016. This number was hugely reduced the following year with only 8,113 applications for accreditation were approved. The decline of the number of accredited instructors continued in the next years such that in 2020, there were only 1,844 instructors that were accredited by MARINA. This trend was also apparent among the assessors. From 2,036 accredited assessors in 2016, there were only 425 accredited assessors left in 2020. As to the supervisors, the decline was greater for in 2020, there were only 169 supervisors that were accredited throughout the country as compared to the 2,033 accredited supervisors back in 2016.

This concern on the decline of instructors in maritime schools is a prevailing issue among METIs not only in the Philippines but also in other parts of the world. As early as 2011, it was found out that one of the pressing problems of the Philippine maritime schools is the lack of qualified instructors (Baylon & Santos, 2011). This is aggravated by the new conventions on SCTW where the qualifications for becoming a maritime instructor have been made more comprehensive and stringent. The present Convention now requires that the maritime instructors must primarily be qualified theoretically, possess practical knowledge on the courses they are teaching, and must pass all the other prescribed qualifications (SAFETY4SEA, 2019). Aside from the competencies required, the accreditation process also entails additional expenses on the part of the instructor, assessor or supervisor applying for accreditation. The training course on IMO Model Course 6.09 for example as with several others are being offered by training institutions for a fee (National Maritime Polytechnic, 2022). This is on top of the required fees by the MARINA for the issuance of the certification after the required trainings were completed (MARINA, 2013).

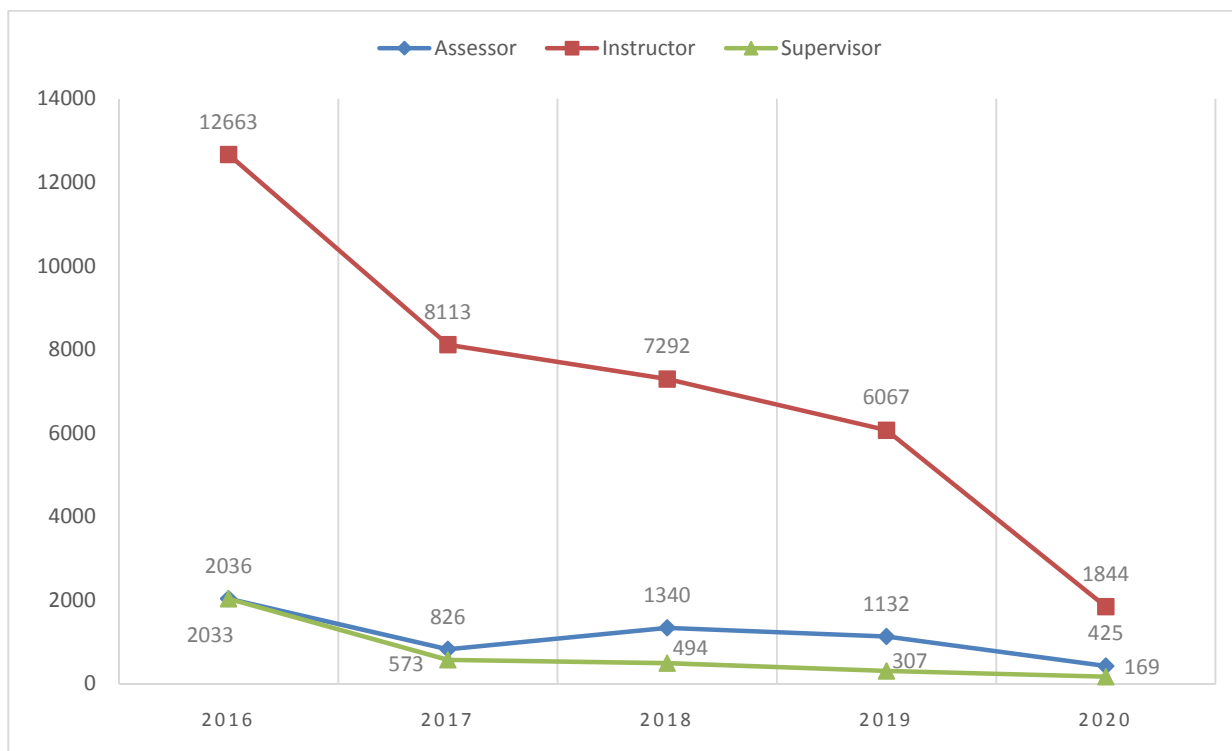


Figure 1. The accredited assessors, instructors, and supervisors in the Philippine Maritime Educational and Training Institutions (METIs), 2016-2020

Source: Maritime Industry Authority (MARINA), Republic of the Philippines (2020) (MARINA, 2020)

Pre-Employment Indicators of the Philippine Seafarers

After finishing a degree in either BSMT or BSMarE, the Philippine seafarers have to necessarily comply with other requirements before they could be employed in the shipping industry. Two of the most salient indicators relative to the pre-deployment of Philippine seafarers are the issued Seafarers Identification and Record Book (SIRB) or the Seafarer's Record Book (SRB), and the number of theoretical examination passers.

Prior to the deployment of the seafarers, they are required to secure a Seafarer's Identification and Record Book (SIRB) or the Seafarer's Record Book (SRB) from MARINA, the authorized Philippine agency mandated to issue the same. In a circular issued by MARINA, it requires that all seafarers engaged in any capacity onboard ships 35GT and above must secure an SRB prior to their deployment (MARINA, 2019). It could be gleaned in Table 4 that as with the other indicators earlier discussed, the number of SRB issued by MARINA had also declined from 2016 to 2020. Although there was an increase of issued SRB in 2017 as compared to 2016, the decrease was still apparent from 2017 to 2020. In 2020 there were 80,439 issued SRBs, a number much lower as compared to the 214,806 SRB issued in 2017. This necessarily implies that the number of seafarers aspiring to work overseas have been getting lower from 2016 to 2020.

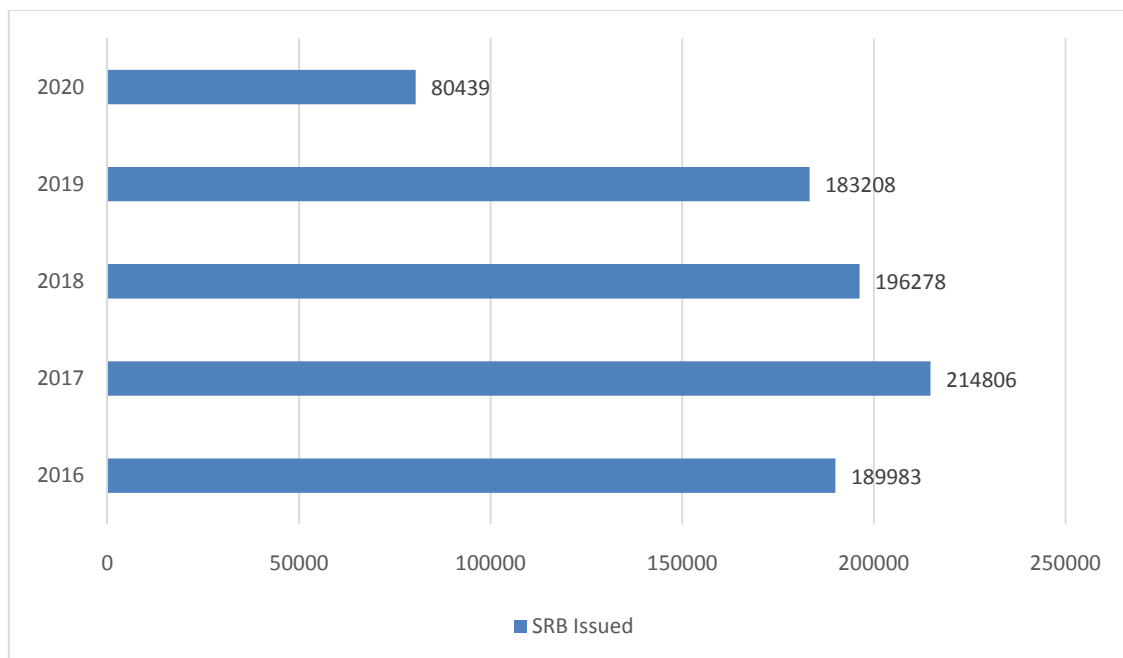


Figure 2. The Issued Seafarer's Identification and Record Book (SIRB) or Seafarer's Record Book (SRB) by the Philippine Maritime Industry Authority (MARINA), 2016 - 2019
Source: Maritime Industry Authority (MARINA), Republic of the Philippines (2020) (MARINA, 2020)

Another salient indicator in relation with the marine officers the Philippines produce is the number of takers and passers of the marine officer's theoretical examinations. This is a salient indicator specially that the Philippines is the top producing country of marine officers in the global labor market (MI News Network, 2021; Clapano, 2019; Verdejo, 2021). Under the Philippine jurisdiction, the rules governing the conduct of the assessment process for Masters, Chief Masters, Officers-In-Charge of a Navigational Watch, and Global Maritime Distress and Safety System (GMDSS) Radio Operators as defined under the STCW Convention are stipulated under STCW Circular 2018-08 (MARINA, 2018). As to the theoretical examination of the Chief Engineers, Second Engineers, Officers in Charge of an Engineering Watch, and Electro-Technical Officers (ETO), the rules are provided under STCW Circular 2018-09 (MARINA, 2018). As mandated by the Philippine laws and issuances of the regulating government agencies, the passing of the theoretical examination is the initial step in the assessment process for the issuance of the Certificate of Competency (COC).

As seen in Table 5, as with the other previously discussed indicators, the number of officers taking the theoretical examination has also been declining from 2016 to 2019. In the case of Masters, there were 4,230 individuals who took the examination in 2016. As compared with the number of takers in 2016, there were fewer individuals who took the same examination in 2017 (3,260). This trend is apparent until 2019 where only 1,332 individuals took the examination. While the number of takers for the Master's theoretical examination had been declining, so are the number of passers every year. From 3,968 passers in 2016, there were only 1,288 individuals who successfully passed the theoretical examination in 2020.

As to the Chief Mates, the same scenario is apparent in Table 5. In 2016, there were 1,241 individuals who took the theoretical examination for Chief Mates. Of those who took the examination, only 1,172 or 91.24% passed it. In the succeeding years, the number of takers had been declining such that in 2019, there were only 718 and 643 individuals who took and passed the examination respectively.

The statistics of those who took the theoretical examination for OIC Navigational Watch show the same downward trend. In 2016, there were 8,989 individuals who took the examination and 8,202 successfully passed it. This is much higher as compared to the data for 2019. It could be seen in Table 5 that in 2019 only 7,400 individuals took the examination and of those who took it, only 6,282 passed.

As to the Chief Engineers, the number had also been declining from 2016 to 2019. In 2016, 2,602 individuals took the examination. Around 90.85% of them or 2,364 passed the theoretical test for Chief Engineers. From 2016, it could be seen that those who were taking the said examination had been dropping. In 2017, there were 2,326 individuals who took the examination, the following year it was reduced to just 1,867, and in 2019, only 1,128 individuals took it. While the number of takers had been declining, so are the number of passers. There were 2,364 passers in 2016, 1,918 in 2017, 1,493 in 2018, and only 1,077 in 2019.

The same scenario is true in the case of the Second Engineers. There were 804 seafarers who took the examination in 2016. This was reduced to just 706 seafarers in 2017, 627 seafarers in 2018, and 516 in 2019. Although the passing percentage had been consistently high from 2016 to 2019, the number of individuals who passed the theoretical examination had been consistently getting lower. There were 762 seafarers who passed the examination in 2016. This number was reduced to 595 in 2017, 549 in 2018, and 511 in 2019.

In the case of OIC Engineering Watch on the other hand, the trend was different. In 2016, there were 5,560 seafarers who took the theoretical examination. The number of those who took the same examination had been increasing since then. In 2017, the examinees increased to 5,399. The following year, it further increased to 6,881. Although the number of takers was reduced to 6,218 in 2019, this was still higher as compared to the number of takers in 2016 and 2017. As to the passers, it was also increasing except for the years 2017 and 2019. From 5,097 passers in 2016, it decreased to 4,409 passers in 2017 even though there were more takers in 2017 than in 2016. This is due to fact that the passing percentage for 2017 was lower as compared from 2016. In 2016, the passing percentage was 91.67% while in 2017, it was 81.66% only. In 2019, the number of passers (5,221) was also lower as compared to the passers of the previous year (5,923). This is due to the fact that the number of takers was lower in 2019 as compared with 2018 and that the passing percentage in 2019 (83.97%) was also lower as compared with 2018 (86.08%).

Table 5. The Examinees, Passers, and Passing Percentage of the Theoretical Examination for Marine Officers, 2016 - 2019

Types of Officers		Master	Chief Mate	OIC Navigational Watch	Chief Engineer	Second Engineer	OIC Engineering Watch
2019	Examinees	1,332	718	7,400	1,128	516	6,218
	Passers	1,288	643	6,282	1,077	511	5,221
	% of Passing	96.70	89.55	84.89	95.48	99.03	83.97
2018	Examinees	2,142	1,002	9,897	1,867	627	6,881
	Passers	1,780	942	8,479	1,493	549	5,923

Types of Officers		Master	Chief Mate	OIC Navigational Watch	Chief Engineer	Second Engineer	OIC Engineering Watch
	% of Passing	83.10	94.01	85.67	79.97	87.56	86.08
2017	Examinees	3,260	1,161	7,990	2,326	706	5,399
	Passers	3,004	1,020	7,405	1,918	595	4,409
	% of Passing	92.15	87.86	92.68	82.46	84.28	81.66
2016	Examinees	4,230	1,241	8,989	2,602	804	5,560
	Passers	3,968	1,172	8,202	2,364	762	5,097
	% of Passing	93.81	94.44	91.24	90.85	94.78	91.67

Source: Maritime Industry Authority (MARINA), Republic of the Philippines (2020) (MARINA, 2020)

There were several reasons identified why seafarers leave the profession at an earlier age. Some of these reasons are deteriorating sea conditions brought about by climate change and the global warming, physical fatigue coupled by mental fatigue, inadequate salary such that it does not commensurate the risks of the job, and lack of support from the ship owners, authorities, or the shipping industry in general (Singh, 2020). It was also reported that seafarers are now eyeing a more settled lifestyle especially after marriage thus the early rest from maritime jobs. In the same report, family related factors such as being away from the family and personal family problems were viewed as variables which draw the seafarers away from ship jobs to onshore opportunities (Kantharia, 2021). In one study, it was revealed that seafarers are leaving their ship jobs due to the poor working and living conditions on board the ships Nguyen, *et al.*, 2014). Stated differently, the reasons of seafarers in leaving their jobs onboard ships as reported and revealed in studies were rooted on issues relative to labor standards.

Conclusion

The maritime industry in general and the maritime transport in particular plays a significant role in maintaining the world's economy vibrant. One salient factor in keeping the viability of the maritime industry to address the needs of the expanding global trade is the vigorous seafarers' labor market supply and demand. Anent with this, the Philippines being the largest producer of seafarers both in terms of the number of deployed ratings and officers, it is important that its significant in-country indicators relative to the supply and demand of seafarers must be critically examined.

Amidst the growing demand of seafarers in the world labor market, the in-country indicators investigated in this study prescribe that the Philippines' supply of seafarers had continue been decreasing. In terms of the formal education of the maritime students, the indicators suggest that the number of graduates in maritime related degrees had been declining, so are the number of METIs in the country, and the population of instructors, assessors, and supervisors of the training institutions. Also, the pre-departure indicators show that the number of SRBs being released by MARINA had taken a steep decline in the past years. In the case of maritime officers, the number of those who took the maritime officers' theoretical examination, the initial step in securing the required COC had also been declining except that of the OIC Engineering Watch. The growing unattractiveness of jobs in the maritime industry is attributed to labor standards issues and the expanding choices of the young in acquiring an overseas land-based jobs.

Should these in-country situationers be not heeded, it may jeopardize the capacity of the Philippines to supply the global demand of seafarers. This is crucial for while the global demand is increasing, the primary source of the needed manpower may not be able to sufficiently address the

same. In the long run, this scenario is critical most especially that the global indicators suggest that the increase in the demand for seafarers is not going to subside in the future.

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