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IMPROVEMENT OF MARITIME EDUCATION AND TRAINING QUALITY IN EGYPT TO COMPETE IN INTERNATIONAL LABOR MARKET

SALAH ELDIN FARAG & MAGDY ALI ELASHKAR

Maritime Examination Center, Arab Academy for Science, Technology and Maritime Transport, Egypt

ABSTRACT

The standard of education, training and evaluation has an important role in promoting the quality of seafarer's competence. The International convention on standards of training, certification and watchkeeping for seafarers (STCW) together with the International Maritime Organization (IMO) model courses contain the required standard of competence for seafarers in light of emerging technologies. However studies of maritime accidents statistics show that the human factor is still the main originator of the problem. Hence there is a need to improve maritime education and training. This paper discusses the global standard of education, the maritime education systems in Egypt, the barriers and challenges to be addressed, the current and the proposed feature of the needs of the coming generation.

KEYWORDS: Maritime Education, Training Quality, International Labor Market

INTRODUCTION

The maritime education process enables seafarers to gain enough knowledge, qualifications and skills to meet the required standards of the STCW. Preparing seafarers to be competent in the maritime field can be influenced by many factors: international conventions and regulations, flag state parties (authority), navigation companies and maritime training colleges and institutes.

It is the hope of the international maritime community that STCW convention, IMO model courses and International Safety Management Code (ISM) will succeed in achieving its objectives: Safety at sea, protecting the marine environment and prevention of maritime accidents. But the question here is have they succeeded in achieving these objectives and to what extent. Studies of marine casualty statistics show no obvious improvement and the human element is still the main factor contributing to this problem.

Planning maritime education system is essential for generating quality seafarers possessing enough skills and knowledge to find their job in international labor market and to fulfill the maritime market requirements.

Systems of Maritime Education

Being a seafarer is of a unique nature in the maritime industry, So people that carry out such an industry encounter specific circumstances that outline not only their career but their education as well. Frequent improvement and knowledge check is considered a must for any seafarer due to the risks that might face the crew during navigation which would consequently affect the safety of the crew, cargo, and ship; therefore the whole team on the ship should have the same level of improved knowledge in order to be able to co-operate effectively of course under the supervision of senior officers who should be capable of handling the crew in common dangerous situations; that's why all the seafarers should perform

permanent knowledge and skill check on international labor market.The fast development of navigational equipment and environmental protection are two of the major reasons behind the necessity of continuous education. This seafarer's education is categorized in to three common systems in the world which are: Traditional system, Gradient System and University System.

Traditional System

This type of system mainly depends on practice as it unifies both theory and tuition. Despite the fact that this system facilitate career development, it has a major drawback which is the prolongation as this type of system consists of few phases where each phase last 2 or 3 months and the whole system last from 5 to 7 years. This time impediment made countries such as: Great Britain, some Asian, and African countries that apply the traditional system to thoughtfully consider replacing this system by other efficient systems.

Gradient System

This system is much more prominent as it is being utilized by many countries world wide such as: West Europe, USA, Australia, Canada, India, Philippines, and Egypt. Those countries have implemented this prevailing educational system on academies, independent universities, colleges, and state universities. Such popularity could be a result of the efficient duration of this system; as it has a navigation system that lasts from 6 to 12 months and the whole education system lasts from 3 to 4 years. After finishing this educational system the petitioner should attain a BSc diploma (Bachelor of Science) and STCW certificate OOW (Officer of the Watch), (Deck/engine).

University System

This system allows its candidates after completion of the program and attaining BSc diploma to continue their education on postgraduate studies. The candidates during this type of education which is still being utilized in France, Greece, China, Poland, Russia, Bulgaria, Slovenia and Romania receive main subjects as laws, economics, environmental protection and human resource management.

There are some similarities among the above mentioned systems such as: meeting the requirements of the STCW 78 and its amendments, all of them combine theory and practice and they all successfully prepare competent seafarers to work on board vessels.

Maritime Education in Egypt

In Egypt the three systems of maritime education are applied as shown in figure 1 below, meeting the requirements of the STCW 78 and its amendments and the ministerial decree number 221 for the year 2013. All of them at the end of the program allow the student to attain OOW COC but after that they all follow the same route to achieve chief mate and master certificates of competency.

There are slight differences between the three systems applied in Egypt and the other different countries around the world but all of them are meeting the international requirements and lead to the applicant attaining OOW COC.

The traditional system requires the applicant to complete high school science branch where he studies physics and math that he will needs during navigation courses, then having a seaman book in the capacity of ordinary seaman (OS) or able seaman (AB), after that he completes 36 months sea service on board foreign going merchant vessels of 500 GT or more during that time he keeps a bridge watch for not less than eight hours out of every 24 hours for six months, then the

applicant can apply for OOW upgrading course for 20 weeks and sit for OOW written and oral exams to get his COC.

The second system which is similar to the gradient system requires the applicant to complete high school science branch then join the approved maritime training college (in Egypt it is The Arab Academy for Science, Technology and Maritime Transport AAST & MT) for four semesters and then completes 12 months sea service on board foreign going merchant vessels of 500 GT or more during that time he keeps a bridge watch for not less than eight hours out of every 24 hours for six months under the supervision of a certificated officer, then the applicant can apply for OOW upgrading course for 20 weeks and sit for OOW written and oral exams to get his COC.

The third system which is similar to university system requires the applicant to complete high school science branch then joins the academy for eight semesters during which he completes 12 months sea service on foreign going merchant vessels of 500 GT or more including the six months of bridge watch keeping then he gets BSc of maritime technology. Then sits for OOW written and oral exams to get his OOW COC.

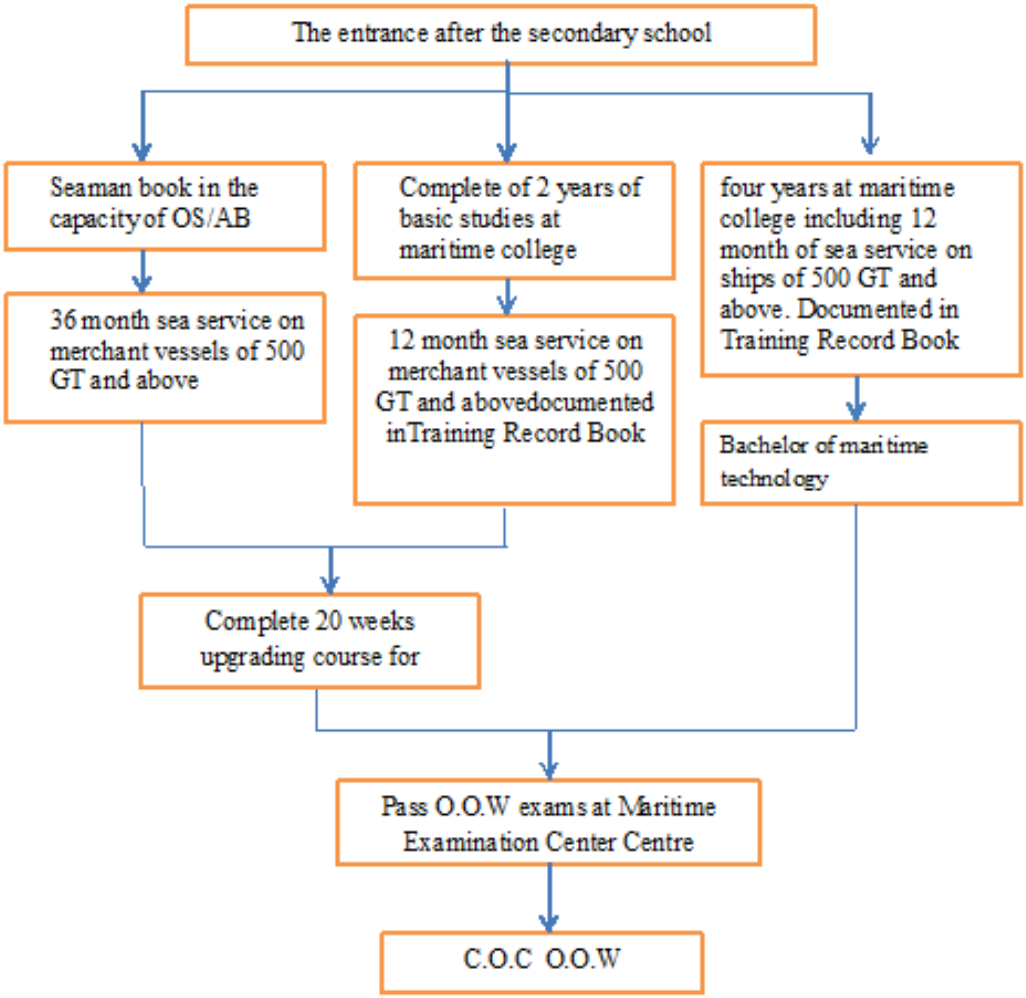


Figure 1: Systems of Maritime Education in Egypt

The question here is the maritime education system in Egypt sound enough to fill in the increasing number of vacancies in the different ranks of seafarers or not? Theoretically the answer is yes, Egyptian certificates are recognized by the European Union since 2012 and passes through continuous auditing scheme for continual of this recognition.

Also Egypt is in the IMO white list for maritime education and training also assessment and examination which leads us to the conclusion that Egyptian seafarers receive appropriate training which qualifies them to work on board both Egyptian and foreign flags vessels.

The following table shows the number of applicants applied for OOW COC exams in Egypt and the number of succeeded applicants since Jan. 2014 till Apr. 2016.

Table 1: Number of Applicants for OOW COC under the Different Education Systems

year	Education System	Exam Session	No of Applicants for the Exams	No of Applicants Succeeded	Percentage of Success
2014	Gradient and University systems	Jan	467	340	73%
	Traditional System		37	19	51.4%
	Gradient and University systems	Apr	127	81	63.8%
	Traditional System		22	12	54.5%
	Gradient and University systems	Jul	502	343	68.3%
	Traditional System		69	40	58%
	Gradient and University systems	Oct	181	106	58.6%
	Traditional System		52	17	32.7%
2015	Gradient and University systems	Jan	400	270	67.5%
	Traditional System		72	47	65.3%
	Gradient and University systems	Apr	146	97	66.4%
	Traditional System		47	15	31.9%
	Gradient and University systems	Jul	287	173	60.3%
	Traditional System		75	36	48%
	Gradient and University systems	Oct	130	64	49.2%
	Traditional System		36	14	38.9%
2016	Gradient and University systems	Jan	223	148	66.4%
	Traditional System		53	33	62.3%
	Gradient and University systems	Apr	71	40	56.3%
	Traditional System		21	13	61.9%

Source: MEC reports

In the above table both gradient and university systems were put together because they both received the same basic studies program at the academy after high school.

It is clear from the figures above that the percentage of success for the gradient and university systems is greater than traditional system except in one session only out of ten sessions that was on April 2016 session which happens once every now and then.

Even so the holders of the OOW COC following the traditional system upon passing the exams successfully possess enough knowledge and skills for being competent officers to work at sea.

Table 2: Total Number of Applicants in the Past Two Years

Education System	No of Applicants for the Exams	No of Applicants Succeed the Exams	Percentage
Gradient and University systems	2544	1662	65.33%
Traditional System	484	246	50.8%

Source: MEC reports

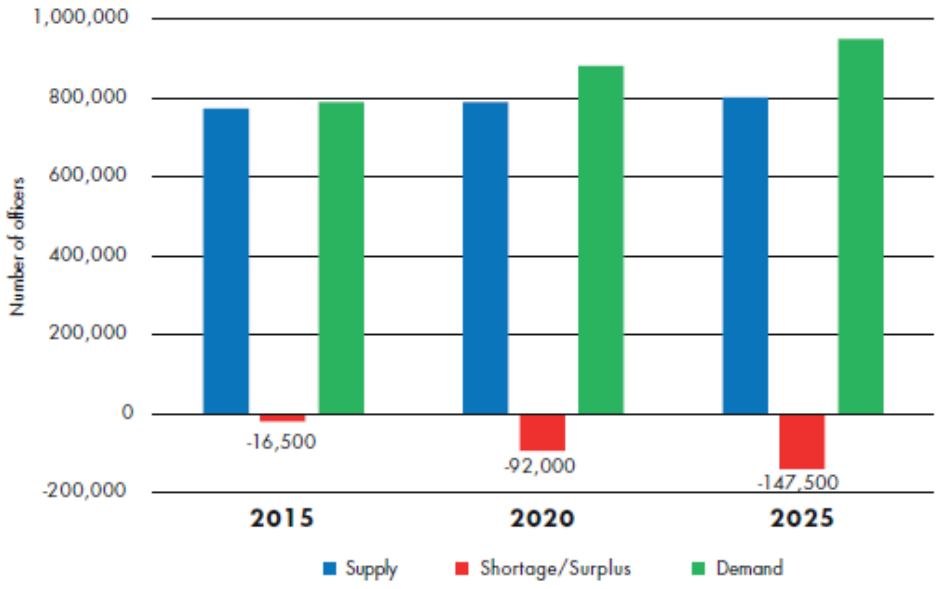
By looking at table two above we will find that there are 1908 holders of OOW COC by end of April 2016, greater percentage of these are looking for vacancies in shipping companies and cannot find one in spite of the Baltic and International Maritime Council (BIMCO) prediction of potential shortage of almost 150000 officers by 2025 (BIMCO 2015).

Estimated Demand for Seafarers

The world merchant fleet for the purposes of the 2015 report was defined as 68,723 ships. The largest category was general cargo ships with 31% of the total ships by number, followed by bulk carriers with 16% and offshore supply vessels with 10%. The 2015 report has included information on the tanker industry and various types of offshore vessels to obtain an indication of the demand for seafarers by these sectors.

According to the BIMCO manpower report 2015 the estimated future supply and demand of seafarers shows a shortage of 16500 by 2015 which represents 2.1% increasing to 92000 by 2020 representing 11.7% and still expected to increase to 147500 seafarers representing 18.3%.

The following figure two will clearly show the increase in demand of qualified seafarers accompanied by the increase in supply as well.



Source: BIMCO report 2015

Figure 2: Basic Forecast for the Future Supply – Demand Balance for Officers

And table three below will show the percentage of the shortage of supply of officers expected by 2020 and 2025.

Table 3: Estimated Supply – Demand Balance for Officers

	2015	2020	2025
Supply	774,000	789,500	805,000
Demand	790,500	881,500	952,500
Shortage/Surplus	-16,500	-92,000	-147,500
%	2.1%	11.7%	18.3%

Source: BIMCO report 2015

The current maritime manpower situation and future outlook indicate that the industry and relevant stakeholders should not expect there to be an abundant supply of qualified and competent seafarers in the future without concerted efforts and measures to address key manpower issues. It is crucial to promote careers at sea, enhance maritime education and training worldwide, address the retention of seafarers, and to continue monitoring the global supply and demand for seafarers on a regular basis.

The situation with the Egyptian seafarers is a bit confusing, they are well educated and trained, recognized by EU and IMO and there is a global shortage of qualified officers and still they do not find a lot of chances to work on board foreign flags vessels,

CONCLUSIONS AND RECOMMENDATIONS

- Maritime education and training in Egypt is sound and recognized by the EU and IMO.
- Egyptian officers have great chances to fill the vacancies in the supply – demand chain of officers if they can have an active union doing proper marketing for them.
- Continuous monitoring of the global seafarers market requirements especially for specialized ships will help getting the officers ready upon request.
- Updating the knowledge of the officers with the new requirements will help them a lot for being ready for job interviews.
- Improving the Egyptian officers English language capabilities above the minimum requirements will increase their chances finding jobs on foreign flags fleets.

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