

SEAFARERS MARKET

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ABSTRACT

In this paper we will analyze the types of seafarer's education in different countries. The education of seafarers is not the same everywhere in the world and thus the quality of future officers differs from country to country. This paper displays the positive and negative aspects of a university level study and a study based on short courses. It will also show the number and percentage of active officers from various countries covering the maritime market. This paper indicates that the nationality of seafarers has changed in the last few decades, and it also states the reason for the decline of seafarers from developed countries. Moreover, in this paper we will analyze the quality of the officer personnel education through all kinds of short courses that meet a prescribed minimum standard which is not on a par with the maritime colleges and academies. This analysis should indicate the main deficiencies in the existing education system, and the necessity of adopting new and more effective measures for better education, which leads to improved safety at sea.

Keywords: nationality of seafarers, seafarer's education, demand and supply of seafarers.

INTRODUCTION

Today, the world's maritime traffic is very large, and every day it is growing more and more. However, as a result of that, we have the risk of maritime accidents, breakdowns, especially in areas where the traffic is very large and which are of great importance for the maritime commercial traffic (such as the Singapore Strait, Dover Strait, etc.). By increasing the traffic density we increase the risk of collision and breakdowns, and the consequences of such accidents (especially large ships) are not negligible. In the end as a result we have the disastrous consequences of the great human and material losses, combined with the pollution of the marine environment. The cause of such accidents and disasters in most cases is a human factor, which is related to competence and expertise. To get a quality product, you need to invest in that product to get the supreme quality. Everyone would like to get something fast and it needs to be cheap and quality made, but you cannot accomplish that without a sacrifice. Same is with human resources. To get a quality merchant navy officer, you need to invest in that man. This requires investment and it is a time-consuming process. And finally, when the high quality merchant navy officer is available on the market, you need to pay for the quality.

Unfortunately, now days the market demands are large, and there are more and more ships built, and there is less staff. To complete the shortage of seafarers, the various short courses and schools are introduced based on STCW that meets the fast prescribed minimum, but complements the lack of seafarers on the market. As a result we have an unfinished product that has disastrous results for the company, the ship, crew and environment. For this reason, strict and effective measures should be taken to raise a minimum standard of the level of knowledge to be gained in these short courses.

WORLDWIDE POPULATION OF SEAFARERS

There is a continuing shortage of seafarers around the world according to the latest study from the Baltic and International Maritime Council (BIMCO) and the International Shipping Federation (ISF). In 2010, the worldwide supply of seafarers was estimated at around 624 000 officers while the current demand is reportedly 637 000 [4].

The important source of officers is OECD countries, but a great number of officers are recruited from the Far East and Eastern Europe. Eastern Europe is a large supplier of seafarers from these countries: Ukraine, Croatia and Latvia. If we take a look at Far East, China is also one of the mayor suppliers of seafarers in the world. But most of them work on the Chinese fleet. Major seafarer supply countries are: Philippines, Indonesia, China, Russia, USA, Japan, and South Korea.

Seafarer Supplier	All officers (%)	All ratings (%)
Phillipines	12,39	21,86
Indonesia	3,84	8,26
China	8,47	5,81
Russia	5,37	4,13
Turkey	5,03	4,03
India	4,87	3,56
USA	4,77	3,26
Japan	4,66	1,48
Korea	2,35	0,85
Canada	1,13	1,22
Malaysia	1,05	1,03
APEC total	44,03	44,9
World total	100	100

Fig.1. Percentage of all officers and ratings from major seafarer suppliers [3].

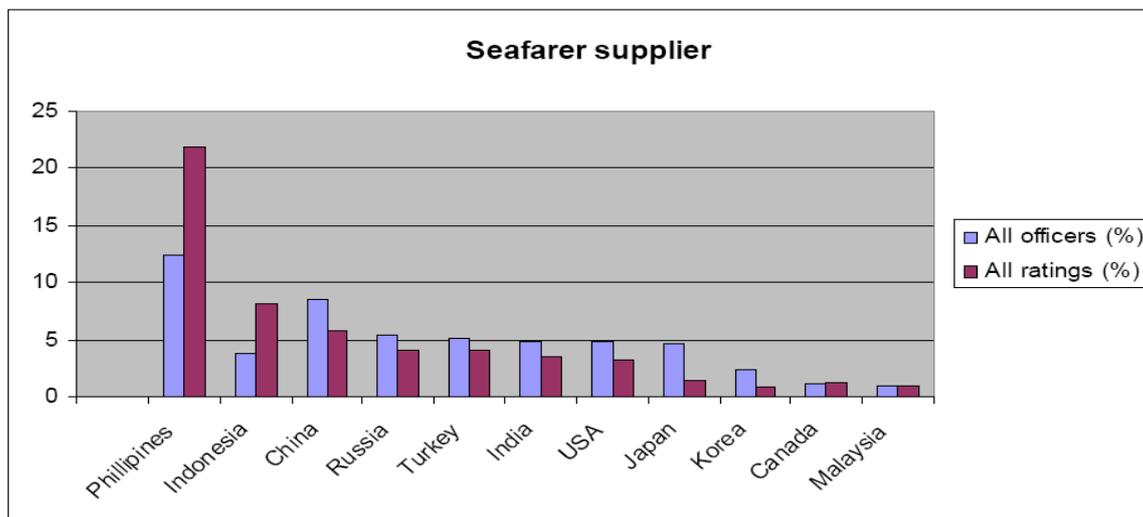


Fig.2. Chart of all mayor seafarer supplier countries in the world [3].

According to Accreditation of Seafarer Manning Agencies (APEC) estimates from 2003, in addition to Philippines, Indonesia, China and Russia, the other big suppliers of seafarers are countries: Turkey and India [1]. As you can see, the major sources of seafarers are the poorer countries. The reason for the decline of seafarers from developed countries, and an increase of seafarers from poorer countries in the first place depends on the price of labour. For example, the average monthly wage of a first mate in U.K. can never be the same or even close to the one that a Filipino first mate receives. Price, of course,

is one of the main factors, but there are other factors that ultimately influence the choice of certain nationalities. Some of these factors are:

- The current relationship between supply and demand,
- Training,
- Loyalty and reliability,
- Statistics of accidents and irregularities during the cruise,
- The possibility of education and training and the number of potential candidates
- Maritime tradition
- Distance of the ship (fleet) of residence,
- National restrictions,
- Trade unions and other protection of seamen, etc.

Seafarers from East and Southeast Asia in addition to low cost labour are characterized by several features that give them an advantage in relation to seafarers from traditional maritime nations, or countries with even cheaper labour. These features are: a great dedication to work, discipline in work and the employer's confidence. Possible disadvantages, such as the lack of knowledge or basic education, can very easily be avoided by investing in additional education and training. From ISF/BIMCO Manpower up-date study 2010 the estimated number of active seafarers in EU including Norway are 143 967 officers and 110 152 ratings. That makes the total of 254 119 seafarers. On a globally supply estimated worldwide at 1 371 000 seafarers, EU including Norway represents about 18, 5% of the total workforce [4].

COUNTRY	ISF/BIMCO 2010			
	Estimated supply 2010			Number of ships
	OFFICERS	RATINGS	TOTAL	
BELGIUM	498	92	590	99
BULGARIA	10890	22379	33269	67
CYPRUS	2907	514	3421	855
DENMARK	2762	1176	3938	409
ESTONIA	2700	6300	9000	35
FINLAND	3000	1200	4200	176
FRANCE	4568	9128	13696	299
GERMANY	3997	6256	10253	663
GREECE	9993	2970	12963	1305
IRELAND	1510	1602	3112	49
ITALY	9560	11390	20950	990
LATVIA	5509	2383	7892	33
LITHUANIA	2916	2479	5395	58
LUXEMBURG	2272	2164	4436	106
MALTA	274	2162	2436	1552
NETHERLANDS	3014	560	3574	827
NORWAY	16082	7300	23382	1381
POLAND	17923	4746	22669	72
PORTUGAL	419	1802	2221	64
ROMANIA	18575	5768	24343	34
SLOVAKIA	258	318	576	0
SLOVENIA	554	100	644	0
SPAIN	3181	3862	7043	116
SWEDEN	5958	4965	10923	356
UK	14657	8536	23193	944
TOTAL	143967	110152	254119	10490

Fig.3. Table of the total of active officers and ratings in the EU in 2010 [1]

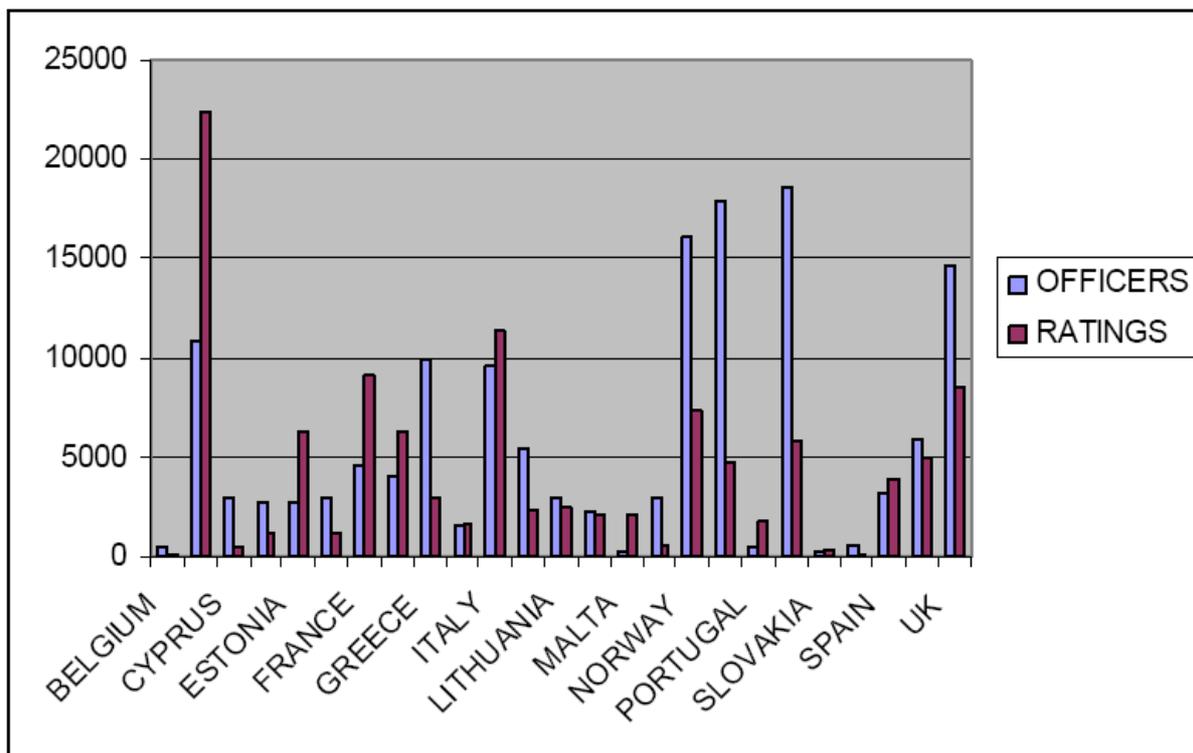


Fig.4. Chart of all officers and ratings in the EU in 2010 [1]

MARITIME EDUCATION IN SOME COUNTRIES

If we look at the STCW 78/95 Convention, the minimum prescribed knowledge and skills, the way of gaining authorization, etc. it is obvious that this system is very familiar to the sailors who come from poorer countries with lower standards of basic education. For this training system, education is a fundamental way of acquiring basic and additional knowledge and skills for the ship's crew. As a result of seeking the optimal relationship between a quality crew and a cheap crew, the rule is that currently, on most ships, there is a multinational crew, especially when it comes to the officers. Under these conditions, there will always be some problems: language difficulties, lack of mutual understanding, cultural and ideological differences, etc, which will, ultimately, have a negative effect on the overall safety of maritime transport.

According to the latest study from the Baltic and International Maritime Council (BIMCO) and the International Shipping Federation (ISF), there is a lack of seafarers on the market and the need for naval personnel is very high [10]. The training of future officers is not the same in all countries. Due to the increasing demand for personnel in the global maritime market, in some countries there is a possibility of taking short courses that combine new knowledge with work experience already gained on board, which provide a license to become a master of vessel.

On the other hand, some countries only offer the possibility of training at universities or colleges and it is only after their completion that the student can begin to build a career on board. As you can see, there are two completely different systems with the same goal, and both have their advantages and disadvantages. We will mention the following examples of education in different countries.

United Kingdom

Liverpool John Moores University

Undergraduate level

Bachelor of Science (BSc), Bachelor of Engineering (BEng)

It's a first level of university degree.

Modes of Study: Three years full time or four years with one year spent on industrial placement.

Postgraduate level

After undergraduate level (Bsc), student can continue with further education and become Master of Science (MSc)

MSc Maritime Operations or MSc Maritime Engineering,

Modes of study: 1 year full-time, 2 years part-time

Fleetwood Nautical Campus

Abbreviated training course

Certificate of competency Chief Mate Unlimited

Modes of study 36 weeks

Passing this course the candidate will be awarded:

- HND (High National Diploma) in Nautical Science (or Certificate of Achievement),

- Chief Mate (unlimited) Certificate of Competency (STCW95 II/2)

The completion of a 36 months watch keeping training, with at least 18 months of watch keeping service whilst holding Chief Mate CoC, enables the candidates to apply for NOE for Master Oral examination with MCA.

United States

There are two methods to attain an unlimited third mate's license in the United States: to attend a specialized training institution (like a university or academy), or to accumulate "sea time" and take a series of training classes and examinations. After that, a candidate must work 365 days on board to become a second mate.

The chief mate (cargo officer) license requires 365 days of service while holding a second mate license, and also candidates have to take numerous exams and attend classes for 13 weeks. Finally, to become a master of vessels of any gross tons upon oceans in the United States, the candidate must work 365 days of service while holding a chief mate's license [5].

Russia

Education in Russia is based on studying in State Marine Academies or State Marine Colleges which lasts 4 to 6 years [6].

Bachelor's degree (4 years) Master's

degree (6 years)

India

Vels academy of maritime studies, Velan Nagar

Undergraduate level

Bachelor of Science (BSc), It's a first level of university degree.

Modes of Study: Three years full time.

Bachelor of Engineering (BEng): Four years full time.

Diploma in Nautical science

Modes of Study: 1 year.

Enables cadets to become navigating officers on Merchant Naval Ships anywhere in the world

Philippines

Bachelor of Science (BS) – 3 years of study.

Croatia

Faculty of Maritime Studies in Split

Undergraduate level

Bachelor of Science (BSc), Bachelor of Engineering (BEng),

It's a first level of university degree,

Modes of Study: Three years full time.

Postgraduate level

After undergraduate level (Bsc), student can continue with further education and

become Master of Science (MSc),

MSc Maritime Operations or MSc Maritime Engineering,

Modes of study: 2 years.

Abbreviated training course

Special education programs in order to obtain officer positions

Modes of study: 6 months.

In some countries there is no possibility of taking courses to start the career of a ship master, it can only be achieved by studying at universities (like in Russia). It appears, that renowned shipping companies dictate or almost impose the type of education for future officers by determining a prescribed minimum knowledge to start a career on board, thereby compensating the lack of staff which they need to cover the fleet. It should be noted that the need for seafarers is increasing, and wages are decreasing. That is why the shipping companies turned to cheaper eastern markets like Philippines, Indonesia, and China, where the quality of education level is not the same as in the Western countries. However, the life standards are much less demanding than in the Western countries, and that leads to smaller allocations of monthly wages for the crew and officers. Unfortunately, the current price of labor costs significantly affects the employment, not the quality. This means the company will be more likely to take a seafarer from an undeveloped country (where their short courses meet the minimum standard prescribed), rather than a skilled seafarer from the West Europe, because it is cheaper. In such way, the management is able to reduce the costs of the company, and that is considered to be a success.

Advantages of training through short courses are:

- Already in early years, the person starts his/her carrier to become a master,
- Same progress in the work, similar to a university graduate,
- Previous experience with the ship (familiarization, life, working conditions, work ethics etc.).

Disadvantages of training through short courses are:

- Lack of theoretical knowledge,
- Questionable knowledge of English language.

Advantages of studying at the university are:

- Good fundament in theoretical knowledge,
- Short adjustment for adaptation on board with acquired knowledge,
- English language.

Disadvantages:

- After completion of three or five years of studying at university, a person starts a little later his / her

- career on board,
- No previous experience on the ship.

Private schools that offer short courses, that meet some minimum standard through which a seafarer obtains additional training knowledge, is not on par with the universities through which a graduate seafarer gains excellent theoretical knowledge from the very start, where he/she needs a little time to put knowledge into practice.

A questionable knowledge of English language also needs to be mentioned, especially for seafarers from Eastern Europe and Asia who have taken short courses since the language barrier can represent a major problem in their future work.

Therefore, we should point out that the education in colleges and universities is far better than education through short courses. Today, the professional and theoretical knowledge is of a great importance because the traffic on the sea is very large, (and every day there are more and more ships at sea) and therefore, there is a huge risk of collision, loss, damage, environmental pollution, etc. Effective measures should be taken to raise a minimum standard of level knowledge through short courses.

CONCLUSION

Global Maritime traffic is increasing, and the risk of collision is increasing along with it. The cause of such accidents and disasters in most cases is the human factor, which is related to competence and expertise. Requirements of the maritime market are huge and because of that, there is a great lack of seafarers in the world today. To get a good staff, you need to invest time and money to achieve the quality product. Short courses that meet the prescribed minimum of knowledge were introduced to compensate for the shortage of staff on the maritime market. As a result of all this, there is a non-quality and unfinished product that affects the safety of the ship, crew and environment. For this reason, strict and effective measures should be taken to raise the standards of a level knowledge in short courses. The conclusion of this thesis must be clear: short courses that allow the acquisition of master-captain title without graduation, on colleges and universities, need to raise the current level of expected knowledge in order to reduce maritime accidents and to increase the safety of navigation.

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