Employment of Georgian seafarers and prospects in the world labor market

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Abstract. Seafarer has been recognized as a key profession by world organisations, which means that seafarers play an important role in world socio-economic and other accompanying processes. Despite the efforts of the Council of Europe countries, the flow of European seafarers in the world maritime labor market is still declining. This article discusses the current state of qualifications of Georgian seafarers and the prospects for their employment on the basis of theoretical and practical results, research of current problems in the labor market and practical analysis of ways to solve them.

Keywords: World labor market, Georgian Seafarers, employment, work force.

1. Introduction

Today, the key role of seafarers is clear to everyone at the international level. The presence of highly qualified seafarers, whose performance is regressing in the current labor market, is important for the safe and quality transportation of the growing flow of goods.

The maritime industry is global, so the maritime labor market should also be viewed in a global context. The profession of a seafarer is complex, in addition to knowledge of professional skills, it also involves the mastery of various cultural and social aspects. The world maritime labor market is differentiated and saturated, although a country like Georgia manages to occupy its own niche and compete with representatives of other countries.

March 19, 1876, when the first naval classes opened in Poti, can be considered the starting point of naval education in Georgia. These training programs were focused on training seafarers and navigators. The history of Georgian sailors and their entry into the international labor market dates back to the 19th century. ([1], pp. 5)

The maritime market has undergone a number of changes in the context of technological evolution and economic globalization. After World War II, the transformation of the industry began, which led to the improvement of this profession and raising it to global significance. At the same time,

a unified legal framework and international organizations were created to regulate the activities of the maritime industry, the qualifications of seafarers and safe navigation. ([2], pp. 15-27)

Another key development was the privatization of the navies of Eastern Europe and the former Soviet republics in the 1990s. The Romanian and Georgian navies, which included ineffective and old ships, eventually went bankrupt. Others (for example, the fleets of Yugoslavia, Poland and Germany) faced serious obstacles. The Ukrainian and Russian fleets were looking for a way to refinance and restructure the fleet. As a result, seafarers from the aforementioned countries were forced to find employment on ships flying the flags of other countries. As a result of these processes, up to 60% of Georgian seafarers lost their jobs due to lack of knowledge of foreign languages, which did not allow them to work in international companies.

In the world labor market, there is a tendency towards a reduction in the number of officers and highly qualified seafarers in developed countries. By 2026, a shortage of qualified personnel in the labor market is expected, namely, a personnel shortage of up to 5%. The main reason for this is the less attractiveness of the seafarer profession in developed countries. In the labor market in the same countries, there is a growing demand for marine agents, marine consultants, shipbuilding workers. [3]

These global trends have highlighted the role of Georgian seafarers and their demand in the world labor market. Despite a number of obstacles, maritime education in Georgia is developing more and more. It is important for Georgia to respond to the expected global shortage by 2026 and offer more qualified employees to increase the export of the country's seafarers to the world labor market.

2. Current situation and Global challenges

The maritime sector is global and complex. It is considered one of the fastest growing sectors, which is directly related to world economic processes, since 80% of the world's cargo, about 12 billion tons, is transported by sea. (UN) Therefore, the growth rate of this sector is directly proportional to the world economic indicators, although the representatives of the maritime industry are often not visible in the world arena. Therefore, it is important to advance their role and promote career development.

Notably, the growth of international maritime trade is much higher than the growth of the world population, and it is also interesting to compare maritime trade with the growth rate of the world

economy (see Figure 1). [4] Seaborne trade is clearly in line with global economic growth, according to a Clarkson's Research report. The global demographic picture and market demand directly affect the growth rate of shipping.

Figure 1. World Seaborne Trade & the World Economy correlation

Source: Clarksons Research

The phenomenological model of the global maritime labor market also clearly describes the factors influencing the demand for seafarers in the maritime labor market (see Chart 1).

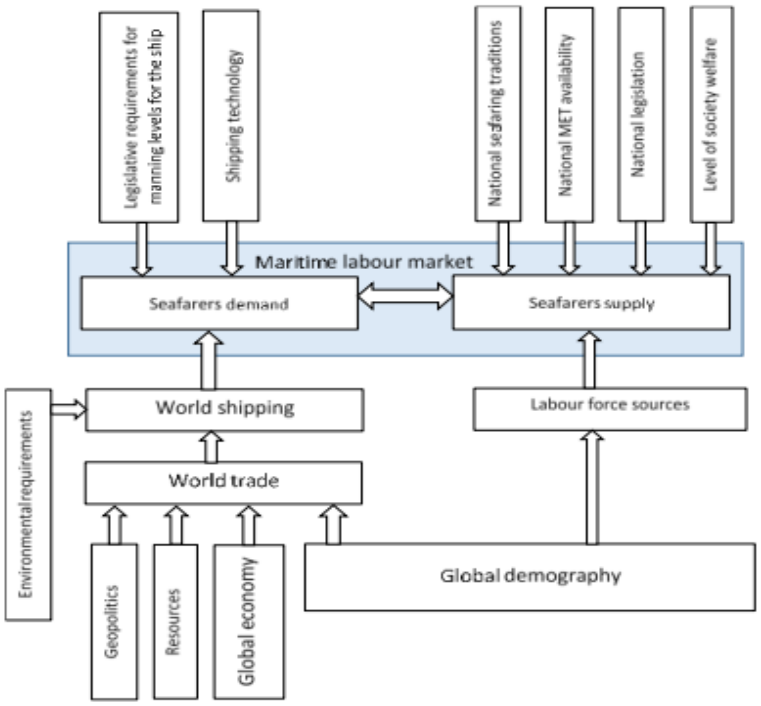

Chart 1. The Phenomenological Model of a Global Maritime Labour Market

Source: Viktoras Sencila, The Phenomenological Model of a Global Maritime Labour Market

According to the above model, the demand of seafarers depends on the types of ships and their number. The number of seafarers and their skill level must meet the requirements to ensure the safety of the ship and its efficient operation. The recruitment of ship crews depends on international and

national legislation, as well as on the automation and development of shipboard technologies. ([5], pp. 3) The cost optimization process has led to a reduction in the number of crews. There were positions on the ship, such as a doctor, a radio operator, etc., that were removed for reasons of efficient operation of the ship.

In the process of globalization and technological evolution, the maritime market has undergone a number of changes: the creation of international organizations, a unified legal framework, criteria that regulate the demand in the maritime labor market. ([6], pp. 15-27) Moreover, in addition, ongoing efforts to optimize costs in the maritime sector have led to the creation of specialized organizations and agencies, which has led to the regulation of the seafarer recruitment process.

Many international organizations and consulting companies, such as Drewry, ECSA, BIMCO, ILO, etc., disseminate statistical information on the state of the world maritime labor market. According to the BIMCO (MANPOWER REPORT), the global seafarer supply increased by 34% between 2005 and 2010, and in 2010-2015 it decreased to 24%. At the same time, according to the report, the world supply of seafarers in 2010 was 1,371,000 (of which: 624,000 officers and 747,000 privates) seafarers, while at that time the world demand was 1,384,000 seafarers. [7]

The geographical distribution of demand for seafarers is as follows: Eastern Europe. Far East and Southeast Asia. The following nationalities are mainly distinguished on the labor market:

Chart 2. The origins of sailors in the World Merchant Fleet for 2015

The origins of sailors in the World Merchant Fleet for 2015

N	Country	Total:	Officers:	Ratings:	% Of total
1	China	243635	101600	142035	14,78
2	Philippines	215500	72500	143000	13,08
3	Indonesia	143702	51237	92465	8,72
4	Russia	97061	47972	49089	5,89
5	India	86084	69908	16176	5,22
6	Ukraine	69000	39000	30000	4,18
7	Turkey	38985	18568	20417	2,36

8	Malaysia	35000	6313	28687	2,13
9	Italy	34486	12988	21498	2,08
10	Norway	33701	14768	18933	2,06
	Total:	997154	434854	433600	60,5

As of 2020, the total number of seafarers working on international merchant ships is 1,647,500, of which 774,000 are officers and 873,500 are private seafarers. [7]

For developing countries, the seafarer profession is attractive primarily because of the high wages and favorable working conditions compared to their countries, as international maritime organizations support the improvement of the proper working conditions for seafarers. As for the average salary of seafarers, it looks like this: (See Chart 3).

Chart 3. Monthly pay for seafarers on dry ships.

Positions	Asian Nationals	Eastern Europeans	EU Nationals	US Nationals
Deck/Engine Cadets	300 - 500	400 - 500	400 - 800	500 - 900
OS/Wiper	700 - 1100	800 - 1100	-	-
AB/Oiler	800 - 1200	800 - 1200	-	-
Cook	1200 - 1600	1800 - 2500	-	-
Bosun/Fitter	1400 - 1800	2000 - 2200	-	-
Electrician	2000 - 3500	2000 - 5000	3500 - 6000	3500 - 6500
4E/3O	1300 - 2800	1300 - 2900	2000 - 4000	2400 - 4200
2O/3E	2000 - 3800	2000 - 4000	3800 - 4800	4000 - 5000
2E/CO	3500 - 7000	3800 - 7000	4200 - 8500	5500 - 11000
MA/CE	5000 - 9500	5500 - 9500	7000 - 11000	8000 - 12000

Source: The Center for Transport Strategies

Chart 4. Monthly pay for sailors on tankers.

Positions	Asian Nationals	Eastern Europeans	EU Nationals	US Nationals
Deck/Engine Cadets	500 - 1000	500 - 1000	700 - 1200	900 - 1200
OS/Wiper	900 - 1500	1000 - 1500	-	-
AB/Oiler	1200 - 1800	1200 - 1800	-	-
Cook	1200 - 2400	2000 - 2500	-	-
Bosun/Fitter/Pumpman	1400 - 2400	2000 - 2200	-	-
El. Engineer	2500 - 4000	3000 - 6000	4000 - 6000	4500 - 7000
4E/3O	2000- 3800	2800 - 4500	2800 - 4500	4000 - 6000
2O/3E	2500 - 4200	4200 - 4300	4000 - 5500	4500 - 7500
2E/CO	6000 - 10000	7000 - 10000	8200 - 11300	8500 - 13000
MA/CE	8000 - 14000	9000 - 15000	9000 - 15000	10000 - 17000

Source: The Center for Transport Strategies

According to a study by the Maritime Zone of the International Maritime Employment Portal, there is a significant pay gap between seafarers around the world. As we know, 90% of the world's fleet operates under a Flag of convenience as shipowners are taxed less and thus reduce operating costs. It was also a positive development in the sense that the seafarers' wage rate was not regulated, which facilitated the employment of low-skilled seafarers. All this led to the recruitment of unskilled personnel on the ships, which, in turn, interfered with the safe operation of the ship. That is why the International Transport Workers' Federation, the ITF, was created, which began to regulate the wages of seafarers on ships floating under such a flag.

According to BIMCO, the world's largest international shipping association, future global demand for seafarers depends on a number of factors, including:

1. A change in the age of the world fleet, which will lead to a change in the number of crew members;
2. Change in the crew formation process, which will be regulated by national and international conventions;
3. The growth of world trade and the global maritime fleet;
4. Improving the efficiency of future ships, which will lead to ship automation and crew reduction

5. Changes in the composition of flags in the world fleet, which will affect the number of crew members.

6. Other.

The global maritime labor market faces a number of challenges related to the future shortage of officers. Moreover, cultural discrimination against seafarers and the protectionist policies of a number of countries are still an obstacle to the seafaring employment process.

BIMCO / ICS MANPOWER REPORT predicts that there will be a shortage of nearly 150,000 employees in the global labor market by 2025. A current shortfall of about 16,500 officers (2.1%), although this figure is growing and lags far behind supply. According to the report, there is also some officer categories are in especially short supply, including engineer officers at management level and officers needed for specialised ships such as chemical, LNG and LPG carriers. BIMCO CEO, Angus Frew, said: "BIMCO and ICS have once again collaborated closely to produce valuable in-depth analysis of maritime manpower trends. The industry can put this report to good use by ensuring we can continue to operate the world merchant fleet with sufficient numbers of qualified and competent seafarers." [8]

The report also mentions the process of development and supporting maritime education, but this was not enough, as if the training /retraining process for seafarers is not accelerated and significantly improved, this will lead to a serious shortage of officers.

3. Current situation in Georgia and future prospects

In November 2014, EMSA - European Maritime Safety Agency, recognized the qualifications and maritime education of Georgian seafarer. This process has led to the popularization of the seafarer's profession in Georgia and the promotion of their employment in the EU countries.

As of today, according to the LEPL - Georgian Maritime Transport Agency, 21,016 seafarers are registered in Georgia, of which 9789 are officers and 11,227 are private seafarers. (See Chart 4.)

Chart 4. Qualified seafarers 2013-2021

Number	***Position***	***Type***
429	Electro Technological Officer (ETO)	An electrical technician for a ship with a main propulsion system of 750 kW or more than 750 kW

965	Captain	Captain of a ship with a total tonnage of 3,000 tonnes or more than 3,000 tonnes
		a total tonnage of less than 500 tonnes
		a total capacity of less than 500-3000 tons
1661	Second Officer	a total tonnage of 500 or more tonnes
		a total tonnage of less than 500 tonnes
845	Second Engineer	a main propulsion system of 3000 kW or up to 3000 kW
		a main propulsion system of 750 kW to 3000 kW
994	First Engineer	a main propulsion system of 750 kW or more than 750 kW
812	Chief Officer	a total tonnage of 3,000 tonnes or more than 3,000 tonnes
		a total capacity of 500 to 3000 tonnes
762	Chief Engineer	a main propulsion system of 3000 kW or up to 3000 kW
		a main propulsion capacity of 750 kW to 3000 kW
6468	**Total**	

Source: LEPL Maritime Transport Agency of Georgia (MTA)

Chart 5. Ratings 2013-2021.

NUMBER	POSITION	TYPE
2		Second engineer of a ship with a main propulsion of less than 750 kw
34		A main propulsion system of less than 750 kw
363		Boatswain
106		Steward
328		Donkeyman
242		Electrician
2863		Ordinary seafarer
309		Cook

1800	wiper
1863	Engineman
3269	Able Seafarer (ab)
48	Fitter
11227	Total

Source: LEPL - Maritime Transport Agency of Georgia (MTA)

It should be noted that Georgian seafarers make a solid contribution to the country's economy every year, as for the year about 381,912,000 million dollars (See. Chart 6).

Chart 6. Income of Georgian Seafarers

Position	***Average salary***	***Working months during the year (average)***	***Average annual income***	***Number of seafarers in Georgia***	***Annual income of Georgian Seafarers***
Captain	12 000	8	96 000	965	92 640 000
Chief Officer	9700	8	77600	812	63011200
Second Officer	4000	8	32000	1661	53152000
Chief Engineer	11 000	8	88 000	762	67056000
Second Engineer	8 000	8	64 000	845	54080000
First Engineer	4 000	8	32 000	994	31808000
Electro Technical Officer (ETO)	5000	8	40000	429	17160000
Total				**6468 Officers**	**286 267 200 $**
Boatswain	2000	6	12000	363	4356000
Cook	2000	6	12000	309	3708000
Ordinary seafarer(OS)	1200	6	7200	2863	20613600
Able seafarer (AB)	1400	6	8400	3269	27459600

Engineman	1400	6	8400	1863	15649200
Wiper	1200	6	7200	1800	12960000
Other	800	6	4800	724	3475200
Total				**11191 ratings**	**88 221 600**
In Total					**381 912 000 $**

The above chart shows that the number of officers and ratings in Georgia is almost equal, 6468 officers and 11191 ratings.

Georgia is a country with a high potential for human resource exports. Public readiness for employment abroad, according to current statistics, in 2021, more than 90,000 people registered for seasonal employment in Germany. Therefore, it is possible to use this potential and popularize the maritime professions, which will direct this flow to higher paid areas such as seafaring.

The results of our research show the following tendency: In the 80% of Crew Manning Agencies operating in Georgia, Most Requested Ranks / Positions of Georgian Seafarers are as below:

1. Captain
2. Chief Officer
3. Second Officer
4. Chief Engineer
5. Second Engineer
6. First Engineer
7. Electro Technical Officer (ETO)
8. Ordinary Seafarer (OS)
9. Able Seafarer (AB)
10. Engineman
11. Cadet

80% of Crew Manning Agencies operating in Georgia have a demand for the following types of ships: Oil Tankers , Chemical Tankers, LPG and LNG, Ccontainer Ships, Bulkers and etc.

Conclusion

Based on the above statistical information and the materials studied, we draw the following conclusions and recommendations:

According to the report of international research institutes, by 2025 it is anticipated that there will be a shortage of qualified seafarers in the maritime labor market, which may be beneficial for Georgia as a shipping country to respond request in a timely manner. For this it is recommended:

1. Maximize the promotion and development of maritime education, especially in the areas indicated by the forecasts (marine engineering / mechanics) and also the increase in the number of qualified personnel.
2. Development of the study of the basic competencies necessary for future officers in order to increase the competitiveness of Georgian seafarers should be strengthened in maritime academies. This can be achieved as a result of the interest of international and Georgian specialists in the educational process and their involvement.
3. In order to develop the educational process, it is recommended to improve the qualifications of the existing teaching staff.
4. The potential of society in terms of employment abroad should be used. It is desirable to popularize the seafarer's profession not only in the region of Western Georgia, but also in the east, which will increase the scale and quality of those wishing to receive a maritime education, which ultimately will contribute to an increase in the number of seafarers in Country.
5. According to statistics, officers bring in Georgia three times more income than ratings, so it is important to increase the number of officers.
6. Due to the process that ships are equipped with more and more modern technologies, the demand for ratings decreases more and the demand for officers increases.
7. Lack of knowledge of foreign languages remains a major challenge for Georgian Ratings and they will try to get jobs in companies with a low reputation, which will damage the reputation of Georgian seafarers.
8. Georgia must sign and join the MLC, which will protect Georgian seafarers and make it more accessible to high-profile shipping companies.

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