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**Gender Equality and Cultural Awareness
in Maritime Education and Training
(GECAMET)**

By
Constanta Maritime University (CMU)

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“Gender Equality and Cultural Awareness
in Maritime Education and Training” (GECAMET)

Theme: Maritime Human Resource Management

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Abstract

“Gender Equality and Cultural Awareness in Maritime Education and Training” (GECAMET) FY2017 IAMU Capacity building Project has the aim to improve the understanding of human factors in the maritime sector, considering gender equality and cultural awareness issues met in the shipping industry. GECAMET has advanced the research in the domain of maritime human resources and gender in shipping. The study presents an accurate overview on the shipping market, considering the role of the human resources and gender in the maritime sector. GECAMET study focuses on gender issues of seafarers among other maritime jobs in the maritime sector.

GECAMET is the largest research upon the number of International Association of Maritime Universities (IAMU) participating countries, funded in 2017-2018 by the IAMU and The Nippon Foundation. The trans-national dimension of the research comes from the participation of 10 researchers from 9 countries and 5 continents (North America, Europe, Asia, Africa and Australia). The complementary team of researchers from maritime education and training institutions of Australia, Canada, Ghana, Norway, Philippines, Romania, South Korea, Spain and Vietnam have analyzed and proposed concrete measures for gender equal practice of maritime management of human resources. The research team have used their diverse experience in assessment of shipping companies, professional expertise regarding multicultural (mixed) business work environment in both on shore and off shore business, experience in intercultural coaching, training and consultancy, organizational anthropology, study of the cultural differences and scientific expertise on performance and multicultural vessels. Within GECAMET has been evaluated the economic efficiency of shipping companies with mixed crews, the effects of external requirements (coming from IMO, ILO, ITF, business environment and civil society) on ship management policies regarding modern human resource management and the role of maritime education and training institutions for improving gender equality and cultural awareness in the complex relation human factors- shipping business environment – ship management policies.

GECAMET results indicate that male-centred workplace culture and stereotypes influences women’s choice to join or leave the shipping sector. The number of women in maritime professions is increasing, yet shipping remains a male-dominated industry. Seafarers are affected by several labour issues and one of such issues is included under the large umbrella of gender stereotypes. Maritime companies would probably need to start social responsible campaigns first with their own employees, by removing gender barriers related to women seafarer employment and glass ceiling barriers after employment of female.

As solution for women seafarers’ awareness and empowerment, the GECAMET team underlines the necessity of promoting maritime women leaders, as role models for females that would like to join seafaring careers. Also, is proposed the concept of “Gendering shipping”. Within the context of the research, this concept is a new emerging trend of benchmark in the maritime sector, based on visible good examples of social responsible attitude of solving the gender issues within the industry. In the case of companies which are benchmarking, the implementation of gender policies occurs before regulations might shift the voluntary approach in a mandatory one. Gendering shipping represents a supportive response of the seafaring industry, long expected, to the empowering necessities of female seafarers’ communities from the world shipping sector.

Keywords: *Gendering shipping, benchmark, Maritime Labour Convention, role model, leadership*

1. Introduction

According to UNCTAD, the total number of commercial ships in the world as at 1 January 2016 was 90,917 with a total 1.8 billion dwt. The world fleet in terms of dwt is still growing. The growth rate of 3.48% in the 2015 was taken as the lowest growth rate since 2003 [1]. The BIMCO and ICS perspective regarding the on board job positions provided to seafarers suggests that there are approximately 1,545,000 jobs for seafarers in international shipping, in which about 51% of positions are for officers and the rest for ratings [2]. In the past decade, the global demand for seafaring was increasing due to the growing world fleet. In the circumstance of the increasing demand of seafarers in the world, it is still rare to find female working on board cargo ships.

According to ILO, in 2003 was estimated that the number of seafarer women was of only 1-2% of the world's maritime workforce of 1.25 million seafarers at that date. This means between 12,500 and 25,000 seafarer women were working in seafaring. This data was based on a working paper commissioned by the International Labor Office in 1999 and conducted by academics from the Seafarers' International Research Centre at Cardiff University [102]. In the cruise line sector, women seafarers were estimated to be 17-18% of the workforce. A number of 94% of women were employed on passenger ships (with 68% on ferries and 26% on cruise ships) and only 6% were employed on cargo vessels (i.e., container ships, oil tankers, etc.) Regarding jobs, there are women shipmasters and chief engineers, as well as other officers. Though, generally, women are working as hotel staff on passenger ships. Of this latter group, 51.2% of women at sea come from OECD countries, 23.6% from Eastern Europe, 9.8% from Latin America and Africa, 13.7% from the Far East, and 1.7% from south Asia and the Middle East [3]. This is the only global statistics on women seafarers up to now and there is a clear need for more recent global data on the topic.

As reported by the International Transport Workers Federation (ITF), of this entire female workforce, women seafarers work mainly in the cruise and ferries sector, often for Flag of Convenience (FOC). According to ITF, several issues and concerns have emerged for the low numbers of women working on board ships. The most serious issues relate to the discrimination and harassment situation facing women seafarers. Regarding the discrimination, women who graduated from nautical courses successfully may still suffer from the bias from shipping companies who are reluctant to employ women seafarers. Once women are employed to work on board, they still face the unequal treatment, such as lower payment and limited accesses to facilities and equipment, comparing with male seafarers. For the bullying or harassment issues, they may particularly happen seriously and frequently at sea as seafarers are far away from their family, friends and other sources of support. Women seafarers are facing tougher situation on sea in terms of harassment, such as sexual harassment or even abuse while at sea. Some special concerns for women seafarers, such as maternity rights, have been drawn much attention recently. The situation is especially concerned with FOC vessels as the maternity rights are covered by the legislation of flag states, though ITF-approved agreement guarantee minimum rights [4].

Maritime trade unions concern such issues and provide instant support and advice once the discrimination or harassment happen. ITF has worked out the guidelines in dealing with the bullying or harassment issues. ITF-approved agreements for merchant vessels stipulate that pregnant seafarers "must be repatriated at the cost of the company and must receive two months' full pay in compensation"[4]. The ITF estimates its female seafaring membership to be 23,000 worldwide corresponding to approximately 1% of its seafarer membership [103].

The International Maritime Organization (IMO) support women that would like a career at sea by Resolution number 14 "Promotion of the participation of women in the maritime industry" adopted in 2010 in the Final Act of the Conference of Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978. The 2010

Manila Conference has noted the long- and medium- plans for the integration of women in the maritime sector developed by the IMO [5].

In addition, it also noted to promote opportunities for women seafarers adopted by the International Labour Conference of the International Labour Organization on 22 February 2006. Further, regarding the women pregnancy, it should never be treated as a disciplinary offence. Pregnancy testing before seafarer women are employed may violate International Labour Organization (ILO) Maternity Protection Convention, 2000 (No. 183) [107].

2. Methods used in GECAMET Research

The research project “Gender Equality and Cultural Awareness in Maritime Education and Training” (GECAMET) is advancing research in understanding maritime human resources and the impact of gender and cultural issues affecting the maritime sector.

The aim of GECAMET is to evaluate the complexity of the relation established between human factors, shipping companies, ship management practices and MET institutions on issues of gender equality and cultural awareness. The effectiveness of the research is reflected in proposing concrete measures of good practice in order to motivate women join the shipping sector. One of such concrete measures is the suggestion to implement gender policies in shipping companies and to update legal instruments and norms on maritime labor, as the Maritime Labour Convention, with gender requirements.

GECAMET research is substantial original, by sharing different multicultural perspective and ambitious goals and by approaching holistically subjects that have never been researched before within IAMU research projects: female seafarers, gender equality and cultural awareness in maritime education and training and the direct and indirect input of various stakeholders of the maritime sector that address directly or indirectly the gender issues.

The research is split into three major work packages: understanding human factors, considering gender equality and cultural awareness issues met in the shipping industry and including the necessity of women leaders in shipping as role models for women seafarers; economic efficiency of shipping companies with mixed crews and effects of external requirements on modern human resource management practices and on ship management gender policies.

The methods to deliver research were various and comprised in comprehensive literature review on gender in shipping, 3 brainstorming working sessions with academia researchers having diverse experience on shipping issues and online questionnaires and e-mail interviews, research visits (e.g. at the International Labour Organization), observations and discussions with diverse maritime stakeholders, website-based policy investigation on policies of ship management companies;

The focus group was held on 12 April 2017 at headquarters of a Romanian Maritime Education and Training institution with 34 stakeholders of the maritime business, including an IMO Ambassador, an ITF representative, several owners of shipping and crewing companies, female seafarers and Maritime Education and Training teaching staff.

In the GECAMET study, many of the responses came from voluntary participation in questionnaires and interviews. They provided valid information, without being samples scientifically randomized.

3. Research Findings on Understanding Human Factors, Considering Gender Equality and Cultural Awareness Issues Met in the Shipping Industry

3.1. Literature Review on Gender Equality and Cultural Awareness in Maritime Sector

3.1. 1. Underlying Theories on Gender Behaviour in Maritime Domain

Gender differences are on agendas worldwide and according to the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), gender equality is defined as “equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women’s and men’s rights, responsibilities and opportunities will not depend on whether they are born male or female” [65]. Few differences between male and female roles in the work place are defined by biology today. Historically, life at sea required physical strength making men better suited than women to work on a ship. The belief that seafaring is man’s job reduces women’s possibilities for entry to the maritime industry [4]. Today, technology has made other skills more important [6]. World Maritime University’s previous President, Dr. Björn Kjerfve, stated in 2014 that “an industry that carries 90 percent of the world’s goods needs at least 90 percent of the world’s talent...and gender is irrelevant” [7]. Others have argued that equal gender representation is required to secure the current and future health and success of the maritime sector [8].

There is not a lot of research done on the gender difference on board, but there are few general studies of females at sea covering a wide variety of topics (in [9], [3], [10]). There are country specific studies ([11], [12] and [13]) and studies on how women identify at sea [14], [15]. Thomas found that many women report that they experience sexual comments, sexual invitations and unwanted physical contact [16] and this is also supported by Kitada’s findings on “micro cultures” with an accepted jargon, laws, traditions and working conditions [15]. Kitada further reports that women respond to this by altering their behaviour, how they dress and how they socialise onboard in order to “fit in” and concluded that women face gender related challenges when working in male-dominated environments as shipping [15], underlying the fact that this happens while the industry that carries the very most of the world’s goods is needing the best of workers, specialists and leaders irrespective of gender [17].

Several studies on gender in the maritime industry are published in the book “Maritime Women – Global leadership” edited by Kitada, Williams and Froholdt [17]. In addition to this, research has been undertaken to focus on several different areas of gender in the maritime industry such as research on the recruitment and retention of women seafarers ([3] [16], [18]). Others have focussed on the lack of amenities, such as proper personal protective equipment and other physical and psychological amenities [19].

Research that also touches gender differences is undertaken for the families of seafarers ([16], [20]).

Stannard et al [104] made an analysis on 595 women seafarers’ health and welfare survey. The analysis represents a collaborative study from the International Maritime Health Association, International Seafarers’ Welfare and Assistance Network, International Transport Workers’ Federation and the Seafarers Hospital Society. In the study were identified several reasons of loss of attraction of women on seafarer careers. For example, one of such reasons would be the lack of sanitary facilities for women on board ships. Nearly 40% of the respondents in the study said they do not have access to a sanitary bin on board; 53% of officers reported not having access to a sanitary bin compared to only 23% of ratings. In the cruise sector, nearly 85% of participants indicated having access to a sanitary bin on board, whilst the figure for those working on ferries

was slightly lower at 63%. Out of the 38 respondents (10% of the total respondents) who left a comment, 5 said they did not want sanitary bins on board or that it was not an issue, 13 felt strongly that there should be a solution in place for the disposal of sanitary items, 19 did not express an opinion but left information about the situation on their ship and 2 felt that sanitary protection should be provided on board as well as a confidential disposal method. Just over 17% of respondents in the main survey said that sexual harassment is an issue for them. Joint and back pain, stress, depression, anxiety and headache seem to be the most common symptoms reported by women seafarers and 55% felt that they are related to their work. 48% stated that they have problems with seeking medical care and offer suggestions to improve this. This study underlines arguments for the need to update legal instruments in order to create a work friendly environment for seafarer women.

Mitroussi and Notteboom consider that prejudices, rigid attitudes, military-like structures in academies and aboard and discrimination have traditionally kept women largely away of the seafaring sector [105] while [106] have concluded that institutional barriers have also existed at the national level, at least in the case of Greece.

Thomas suggested there is strong evidence that gender stereotypes continue to exist in this male-dominated workplace, with women being denied promotion on the basis of their gender alone [16].

Other important input has been collected from the published works of maritime NGOs and maritime institutions, for example (ISWAN) [108].

3.1.2. Gender Identity on Board Multi-crewing Vessels and Cultural Awareness

Concepts

Cultural diversity can be defined as “the representation of people in a social system, with clear differences in cultural group membership” [26].

Cultural diversity gets blamed for a lot of problems and challenges, not only in shipping, but in the World as such. There are hundreds of ways to define culture [21]. Hofstede defines culture as “the collective mental programming that separates members of one group or category from members of another” [22]. Froholdt and Knudsen [23] claims that “research on cross-cultural crews is dominated by one specific understanding of the concept of culture, which is static, evenly distributed and context-independent” and argue that a more diverse perspective of culture should be used when discussing cross-cultural encounters.

One of the reasons that culture is used as an explanation for conflicts and problems is that it creates order in the social surroundings and helps people categorise their surroundings, often in “us and them”. The members of a group can be visually different, eg. age, gender, race, nationality etc, but it can also be invisible attributes like levels of education, experience or personality [24]. Cultural diversity is considered a problem in situations where there are visual differences (skin colour, language, clothing etc), there is an arena where these differences meet (in our study the ships) and where there is a political context where there are limited resources (in our study the positions, power, respect and equality) [25].

The cultural difference in the group will be expressed through values, rules, shared opinions and communication, both language and communication style. The challenges with cross-cultural communication has been one of the most researched areas in the maritime domain ([26], [27], [28], [29], [30] etc.)

Bowers et al presented the sensitive effects of diversity thoroughness in decision-making as an alignment between definitions, understandings and concepts. This prevents quick decisions that are not thought through. This is mainly positive if the task is complex and will be a negative issue when the task is routine [41]. Kippenberg and Schippers consider the negative effects are sub

groups and sub cultures in the organization that will cause favoritisms within one's own group. Also, the homogenous groups have more harmony [24].

Previous research on the subject of multicultural crew indicates that the human issues that arise due to multicultural orientations are the relation between multinational crew and the occurrence of accidents (Berg, Storgård, and Lappalainen [40]; Grech et al [42]; Hansen et al [43]; the challenges with cross-cultural communication (Moreby [27], [28]; MARCOM [29]; Sampson and Zhao [30]; Pyne and Koester [55]; Horck [32], [44], [45]; Iakovaki and Theotokas [46] and the challenges that arise from living conditions onboard (Acejo [37], Alderton et al [38]; Kahveci et al [48]; Thomas, 2003). Also there is a challenge with the working relations among culturally diverse teams (Østreng [50]; Wu [62] Knudsen [49]; Progoulaki [54]; Theotokas and Progoulaki, [59], Hansen et al [43]).

In addition, Progoulaki ([51], [52], [53], [54]) has researched the applied Human Resource Management practices in shipping and others have researched the manning of vessels (Sampson [58]; Kahveci et al [48]; Progoulaki, [53], [54]; Winchester et al [61]).

Progoulaki and Theotokas [57] analyzed the issue of multicultural crews and the relevant theories that support the “development of a framework of strategic choices that a shipping company can select for the competitive management of its maritime human resources’ cultural diversity”.

3.1.3. The Roles of MET in Promoting Gender Equality and Cultural Awareness

Maritime Education and Training is crucial in molding future seafarers who are gender and culture-sensitive. MET institutions, according to Cars and Österman, are important bearers of societal norms and values [31]. To develop individuals who are gender-sensitive, educational institutions should adopt effective gender-inclusive strategies and pedagogical and didactic approaches. Similarly, cultural sensitivity can be acquired by students if lessons are delivered in the context of a culture-sensitive learning environment. When this becomes a habit, this kind of sensitivity will translate itself from being a theory learned in school into becoming part of a seafarer's way of life as he or she interacts with others in his work environment on board ship.

MET institutions are expected to play multifaceted roles in the education and training of maritime students. Such roles include:

- (1) serving as a training ground for future men and women who are expected to be equipped with the technical knowledge, skills and attitude as part of the formulaic triad of competencies;
- (2) breeding future seafarers with sensitive minds and character, making them more aware, understanding and adaptive to diverse cultural orientations;
- (3) developing the kind of mindset that removes gender biases and rises above cultural differences; and
- (4) increasing gender and cultural awareness by integrating such ideals in their curriculum and instruction.

While the first role clearly focuses on developing the technical competencies required in the field, the rest of these functions are geared towards the development of the person himself or herself in relation to others he or she will be working with. Similar views were expressed by Horck on his plea for a model course in pedagogy and cultural awareness [44]. In his paper, he expressed the need for MET institutions worldwide to form their own initiatives and create proactive policies to devote time to such courses. According to him, cultural awareness and understanding of cultural diversity must be taught by introducing soft subjects in the MET curriculum.

Relative to this concept, the GECAMET research examines various leadership and coaching techniques practiced by maritime education and training institutions in promoting gender equality and cultural awareness.

3.2. MET Techniques of Leadership and Coaching for Improving Gender Equality and Cultural Awareness on Board Ship

3.2.1. Leadership and Coaching in Maritime Education and Training

Leadership and Coaching are very different activities. Leadership is about effectively conveying team objectives, motivating them, moving them in a specific direction, managing complex situations, etc. A leader has the power to make decisions that directly influence the outcome of his team.

A leader operates on a less personal level typically. Usually one selects their coach but one does not select their leader. It is usually the other way around. Leaders set the tone of the organization, how things will go. They create the vision and inspire teams toward the vision. Leaders are only successful if they get results and they get those results through people. Leaders have the authority to require results from people by performance plans.

Coaching is related to the accompaniment of people. In a coaching process we do not lead, guide or decide what the team or coachee (either individual or group) has to do, but rather we accompany the person so that they become aware of their skills and abilities by themselves and achieve the goals set or find the growth they want. In this case the result depends 100% on the coachee.

The shipping coaching is aimed at any person who is part of the crew inside the ship. This focuses its efforts on strengthening each one of the facets that may occur in a ship and its crew, thus solving obstacles that prevent the optimal functioning of them. Many people are able to reject coaching programs, perhaps because they think that coaching is a passing trend, without taking into account that precisely this process can maximize their capabilities within the company. Why is coaching necessary in an organization or group?

- It is capable of stimulating crew to the best of themselves
- Facilitates personal change, making it easier for people in the ship and company to adapt to change
- It creates awareness, responsibility and leads the crew into action
- Improves communication between different groups in the ship (or company)
- It focuses on the possibilities and potential of the future (not past)

Coaching therefore has many benefits for the ship organisation. These benefits must be the ones that make company take the path of getting started in this process of change. Change with the double aim to be able to adapt to the current situation (ship, context), and to develop the people on board who make them up.

The main characteristics of a Captain or Chief Engineer on board a merchant ship are concentrated on the following axes:

- They are managers chosen by the staff in the company. The crew does not choose them
- His figure is directly responsible for the objective for which everyone must work (the transport of goods from one point to another). The Mission of the maritime voyage is on his shoulders
- This objective also includes being responsible for the safety and security of the entire crew
- The hierarchical structure that governs them is very strict
- In addition to command position, they must set a continuous example to the rest of the crew
- Despite the stiff hierarchy they must strive for good relations between all the crew.
- The degree of responsibility of these figures obliges them to carry out training tasks on board for their crew.

To carry out the tasks entrusted, from the point of view of a coacher on board, the main tools that the Captain or Chief Engineer must handle are under these skills:

- Effective communication with all the crew, always with results in positive action
- Valuing the crew results in increased motivation
- Listening deeply results in people feeling they are being heard and that their opinions matter

On board coaching is a way of inspiring and supporting someone to achieve a goal or to develop or obtain skills on the personal benefit and on the benefit of the crew. The coach makes interventions to support the coachee to move forward and to take responsibility for their own decisions and actions such as:

- encouraging people move out of their comfort zones inside the ship
- helping others members to learn as opposed to teaching them things
- motivational and enjoyable in the work context
- performance focused (as any other work environment) but also people centered
- releasing potential of each person

During the one-to-one voluntary coaching sessions, the following areas were identified as being particularly suited to coaching:

- supporting and motivating crew
- crew setting and achieving their own development goals
- performance appraisals
- planning and structuring lessons
- professional coaching conversations following classroom observation
- solving problems
- communicating with colleagues and parents
- effective delegation

After the coaching programme, the coachers identified the following as particularly useful:

- Developing themselves as an important piece on board through the one-to-one sessions
- Unlocking new areas of expertise and enhancing previous skills
- Importance of effective delegation with the other members of the crew
- Improved communication between individuals and ship departments

Although the number of groups and students analyzed is sufficient, a greater number of experiences should serve to better define future lines of work.

Coaching is focused on creating a shipping new environment, through conversation and teaching that facilitates the process by which any crew member can move toward desired goals in a fulfilling manner. The outcomes delivered include:

- increased self-awareness and self-knowledge
- acquisition of new knowledge and skills (tools)
- attainment of personal and shipping professional goals
- sustainable behaviour change (more adapted to the context)
- increased personal life satisfaction and self-efficacy

Further directions of research can be orientated towards validating the above conclusions by taking into account the perspective and observations of marine instructors and MET students which participate at the proposed coaching exercises.

3.2.2. New Methods Proposed of Coaching in Shipping

During sessions of brainstorming, discussions and working meetings, GECAMET team members have proposed the following educational methods (exercises) of maritime coaching.

Coaching is about communication with ourselves (teachers, coachers) and with others (students, graduates or postgraduate seafarers). When we talk about the core basic coaching skills, we talk about the skills and tools based we use to perceive others, to talk to others and to help our

coachees to articulate their thoughts, feelings and experiences on board. The ability to communicate in a right way starts with a high level of self-regard. The four pillars to the coaching skills are:

1. *Listening*. The coach is able to listen without judgment, question without needing to know the answer, and can show empathy and build rapport. Listening crosses, a spectrum from where the listener's focus is on themselves to where the listener's focus is on the speaker.

2. *Questioning*. Make sure the questions you ask are for the benefit of the coached person, rather than for you.

3. *Empathy*. It is about imagining ourselves in the other person's shoes, as much as we can. Intuition is what your brain does when you leave it alone. Assumption is what happens when you put your own spin on your intuition.

4. *Rapport*, the psychological connection we make when we are aware of others, have high regard for others as well as for ourselves and are genuine in the way we communicate with others.

The three methods of coaching presented below were proposed and applied during MET classrooms by GECAMET research members.

The proposed coaching methods, as described below, can be used not just during MET classes, seminars or maritime practical courses organised in MET classrooms, but also in training centres, open space or on board ships.

The participants are the instructor (coach) and MET students or seafarers.

During the proposed exercises, participants will acquire diverse skills, as: team working and collaboration, improved communication skills through listening and questioning between the students, integration of different ideas etc.

The exercises below, generated during GECAMET discussions between the project members were proposed by lecturers having long experience in maritime training and academic background.

Method 1 Proposed of Maritime Coaching

Name of the exercise: Turning the life raft.

Material/Equipment: a life raft. It can be flattened if you are in an inner space such as a classroom. The life raft does not need to be complete or operative. A waste life raft it would be fit perfectly.

Space: Classroom or open space.

Duration: approximately 30 minutes.

People/Group: It depends on the life raft capacity. Typically, between 5 and 12 people. More people, the more difficult the experience will be.

People/Orientation: students or seafarers on board.

Process of the experience: Turn back the life raft. Every one of the group has to stand on the life raft. The group aim (shared task) is to flip the life raft over in the fastest time. But nobody must step off the life raft. If anyone put his/her foot on floor the experience must be repeated.

Variations to the experience: Groups could be increased with more students. Other options would be not to let the students speak to each other (in order to use only signs language). They additionally could be blindfolded during the task.

Key Coaching Understanding: Team working and collaboration. Listening and questioning between the students. Integration of different ideas.

Final open question to the group:

- Did anyone view the life raft task as impossible?
- How did team members try to keep everyone on the life raft?
- Did the group cheat?

Method 2 Proposed of Maritime Coaching

Name of the experience: Scrabble

Material/Equipment: A set of standardised flags (ICS, International Code of Signals) which represent an international system of signals and codes used by vessels to communicate important messages regarding safety of navigation and related matters. We are interested in the flags-letters A to Z. A stop watch to measure the time of each experience.

Space: A big round table (at least a diameter of 3 meters). If not possible, the open floor it would be enough

Duration: 30 minutes

People/Group: Between 6 to 10 people

Preparation: All of the participants must sit around the table. If there is no table, they can sit down on the floor in a circle shape. All the flags from CIS (letters A-Z) must be on the table/floor scabbled and visible

People/Orientation: students or seafarers on board

Process of the experience: All the team must be in circle around the flags-letters. The radius of the circle must be such as to make it difficult to reach the opposite side of the table. Sequentially each member must say a word with the double condition: 1) same number of letters as the people on the group; 2) no letters repeated. The aim of the group is to create the word identifying and picking up each letter. No one can move from his/her position; only is allowed to stretch the arms

Variations to the experience: To “write” the words backwards. As a previous experience all the students can be blindfolded and only for the sound of their voices must to try to put all in a perfect circle (equidistant from each other)

Key Coaching Understanding: The participants will get empathy with each other and working in a team (fulfil vision of the group), knowledge of CIS flags, creative skills, active listening, skills to create a strategy, different ways to be more effective in an activity

Final open question to the group:

- How could you have been more effective in this activity?
- What were some of your strengths and/or weaknesses?
- Was teamwork evident in the game?
- Do we allow others to show their strengths?
- How do we help others overcome their weaknesses?

Method 3 Proposed of Maritime Coaching

Name of the experience: Titanic

Material/Equipment: A bundle of sheets (DIN A-4 or better DIN A-3). A water pond, quayside, pool, etc. with access to calm waters

Space: An open space with access to water pond, quayside, pool etc. with access to calm waters

Duration: more than 30 minutes.

People/Group: The experience is worked in teams of 2 people. You can create as many groups as you wish and establish a play-off qualifying round

Preparation: Each person will have a sheet of paper by round

People/Orientation: Students. Each couple of people work against the other, one by one

Process of the experience: The aim of the process is to fold the paper with a ship shape. The paper construction must be oriented to “sail” as much time as possible before the ship-paper will sink. Once created the ship (time controlled, five minutes as maximum) each couple put them on the water pond. The ship with the longest sail before sinking will win. The whole process is repeated so players can modify and improve their folded ships. The overall winner will be the group with the greatest number of wins.

Variations to the experience: You can use additional material as glue, tape, or an additional sheet of paper. In the same way you can create the contest as the ship with the longest time before sinking wins.

Key Coaching Understanding: Communication, team work and collaboration, improved creative skills while accepting different points of view, searching and exploration skills and tasks (to see how others improve their models).

Final open question to the group:

- How did you feel about the Titanic activity?
- How did the different factors affect the sailing of the ship?
- How did you decide which was the best way to fold the ship such that it would achieve the objective in the best way possible?

3.2.3. New Methods Proposed of Maritime Coaching focusing on Gender Equality and Cultural Awareness

During sessions of brainstorming, discussions and working meetings, GECAMET team members have proposed the following three educational methods (exercises) of maritime coaching, focusing on key aspects of gender equality and cultural awareness. The suggested methods were discussed and agreed during the joint discussions made by partners within the project. They were validated during classroom applications.

Method 1

Name of the experience: Cultur Tupperware

Subject: Multiculturalism on board

Material/Equipment: Tupperware with meals

Space: Class room, dinner room or an open space

Application Period:

- Q2 – October - February 2017
- Q5 – February 2017 – May 2018

People/Group: All the students in the same course.

Duration: Around 1h or 1:30h

People/Orientation: Students MET of the first year

Process of the experience: It is recommended this exercise to be developed in the first days of the course.

Each student must to bring a typical meal/dish/drink in their region/country. Meeting all the students at the same day they will share them in a common meal. At the end of the meal the coacher will arise some questions about the common experience. This questions are introduced in two stages: about the meal (break ice questions), and questions about the understanding of the multiculturalists on board.

GENERAL

- What are the main ingredients of your meal?
- When usually do you eat such meal (anniversaries, birthdays, holidays, etc...)?
- Is it a meal cheap/expensive?
- Is it a meal easy to cook / difficult to cook?

MULTICULTURALITY

- Do you think everybody has enjoyed your meal?
- Do you think it is the best one?
- Do you know about any people with restriction to eat your meal?
- Knowing your colleagues, did you repeat the same meal?

Objectives of the Technique:

- Think about the multiculturalism on board of ships

- To learn from each other (wide cultural behaviour)
- To learn other/own restrictions and limitations thought the meals
- To cooperate and share on the basis of the differences
- How could you do this better the next time?

Method 2

Name of the experience: InEquality

Subject: Genre, non-equality

Material/Equipment:

- A set of CIS flags
- A classroom blackboard
- A chronograph (time watch)

Space: A classroom

Application Period:

- Q2 – October - February 2017
- Q5 – February 2017 – May 2018

People/Group: All the students in the same course.

- Q2 – 4 groups of 6 students
 - 18 males and 6 female
- Q7 – 2 groups of 5 students
 - 7 males and 3 female

Duration: 1 hour

People/Orientation: Students MET. They will work in pairs (man-woman)

Process of the experience: The coacher will create couples of students (5 or 6). These couples must be male-female composed. The coacher will act in an unfair way with the aim to arise genre discrimination.

The students must to work in pairs in a cooperative way. The coacher will be a set of CIS-Flags (A to Z letters). Then the coacher will say a maritime word (such as “BOSUN”) and the couple have to create such word with the flags, the faster the better. The coacher will have time of the achievement. At the end of the experience the coacher will write in the class blackboard the names of the students, with the times and most important: the qualification/mark of the couple. This qualification/mark must be deliberately less for the women that the men, so the men marks in the same couples) will be higher than the women marks (see the Table 1 for an example).

Table 1. Example of Unfair Qualifications

GROUP	NAME	TIME	MARK QUALIFICATION
1	John	1:30	7.0
1	Laura	1:30	6.5
2	Thomas	1:15	8.5
2	Judith	1:15	8.0
3	Alex	1:40	6.0
3	Nancy	1:40	5.5

At the end of the exercise the coacher introduce questions about the experience. The expected final result is to understand that the experience was, 1) unfair, 2) gender biased

Variations to the experience: The key point of the experience is to develop in pairs such easy activity in order to visualize more clearly the unfair marks. The coacher can change this activity having in mind to create the easiest experience possible.

Objectives of the Technique: to think about the unfair way that the same activity is marked (genre bias).

Questions to be developed after the experience (guide to classroom):

- Do you think it was a difficult task?
- What conditions are necessary for high performance in a team?
- What are the strengths and weaknesses of your team?
- How did you find your performance both as a group and as an individual player?
- As a result of the experience, do you know better the CIS alphabet?
- Working in couples improve your performance as a team?
- Do you think that the results (marked by the coacher) were unfair?
- Why were they unfair?
- Why the women have a worse qualification than men?
- What effect do our decisions make on the lives of others?

Method 3

Name of the experience: CardRole

Subject: Group Role Experience. Subject to work on: Multiculturalism and genre differences.

Material/Equipment: A bunch of blank cards

Space: Class room

Application Period:

- Q2 – October - February 2017
- Q5 – February 2017 – May 2018

People/Group: All the students in the same course.

- Q2 – 4 groups of 6 students
 - 18 males and 6 female
- Q7 – 2 groups of 5 students
 - 7 males and 3 female

Duration: Around 1 hour

People/Orientation: Students, graduates or postgraduates

Process of the experience: The technique is divided in three different stages.

Stage 1. Creation. Each student has to write in the blank card (side A) a real or imaginary sentence about genre/multicultural discrimination. On the other side of the blank card (side B) the student has to write the group discriminated with the sentence wrote in the side A. For example:

- “You are always well dressed in the bridge” / Genre women discrimination
- “Don’t do it! It’s heavy. I will for you” / Genre women discrimination
- “Don’t talk with her; she won’t understand you” / Cultural-Genre discrimination

Stage 2. Reading. The coacher will collect all the cards written for the students, mix them and stack all face A up. Then the coacher will read each sentence to all the classroom. For each sentence the class must to decide if the sentence read is about genre or multicultural discrimination.

Stage 3. Final reflexions. Once all the sentences read the coacher will introduce general questions to think about the subject.

Key Coaching Understanding:

The core questions to be introduced about the different subjects are:

- What was the main difficulty in this game?
- What challenges did you face when devising the sentences?
- Have you ever heard discriminative sentences as we have read?
- Which context in?
- What do you think are the reasons to tell such sentences?
- What we have to do to change this point of view (in order to end with such differences)?

- What aspects of good communication do you see being demonstrated here?
- After all sentences listened, did you try to do something different? How?

3.2.4. Validation of Proposed Methods of Maritime Coaching. Gender and Cultural issues that Affect Human Interaction and the Work Environment on board

Multicrewing Vessels

The analysis of the responses of the above exercises performed during MET classes shows a repetitive pattern. This repetition is based on different questions and answers that are systematically repeated, and about which all students in one way or another show concern. Generic competencies are always focused on increasing satisfaction and developing skills. This development, from a labor point of view, focuses on:

- As a main principle, to create a positive working environment on board
- Basic tools used as coaching, support, delegation, mentoring and empowerment to ensure retention and crew satisfaction
- Creating a gender role of awareness facilitate the development of competencies
- Handle people differences, conflicts, offer performance feedback in an appreciating manner to ensure smooth task execution

The working environment, based on the above principles, also shows a repetitive pattern in terms of gender and culturally oriented skills. Although the difficulty in measuring these skills is evident, the following have been identified:

Assessment. Labour is part of an individual's personality. There are no gendered jobs from the students' point of view.

Equality. The students seek for equality, and show a high disagreement against inequalities of capacity, diseases or opportunities.

Moral. The people appreciate the equity (no gender or cultural bias), the spirit of justice and the moral of his team.

Recognition. Every person feels the need to be recognized regardless of gender or cultural origin.

Treatment. Fair treatment must be common to all people. Any superior position on board must thank, facilitate or recognize all the profitable actions that others carry out. On board the subaltern is an attentive observer of the superior.

The future lines of work must be articulated in three different axes.

1) *Students.* Improved gender awareness and cultural equality of students.

2) *Trainers/Coachers.* Create a greater repertoire of tools and techniques applied to carry out the implementation of the policies defined.

3) *Exchange of experiences.* A greater increase in classroom experiences, as well as a greater visualization of those experiences.

Within the first group, future directions should focus on more and broader gender and multicultural education for students. This prior training should be considered prior to the students' arrival in higher education.

Nor should it be overlooked that students' learning styles are classified according to their personal preferences, usually characterized by the way in which they were initially assessed, or the type of content under which they have learned.

With regard to the second group of future directions, the expansion of the set of tools and techniques by force means an increase in the training of professionals. These 'new' professionals must change their pedagogical positions towards the figure of the coacher. The figure of the coacher has to go through a multidisciplinary training of the new teaching staff. In short, teacher training is essential to promote gender parity.

Finally, experiences on training improvement should be shared. Not only must the results be shared, but the experiences must also be designed together.

3.2.5. Various Leadership and Coaching Techniques Practiced by MET Institutions in Promoting Gender Equality and Cultural Awareness

Realizing the need to promote gender equality and cultural awareness in the academic environment, MET institutions have also implemented reforms in their internal policies, curriculum, and instruction. The following initiatives and techniques have been gathered as common practices among MET institutions to promote gender equality and cultural awareness:

1. ***Appointment of Women Leaders in the Hierarchy.*** Women are appointed in the 10MET institutions of GECAMET research partners as department heads, program heads, and curriculum and development planners, and are given critical roles in the institution's governance. In their administrative positions, women focus to share the same vision, decisiveness, sensitivity to issues, and vigor in effecting solid plans and reforms as men, to strengthen the foundation of the institution and to match institutional goals with those of the industry.
2. ***Curriculum Revision and Redesigning Course Contents to Increase Students' Awareness on Gender and Cultural Issues on Board.*** The minimum interval to which curriculum design and content is revisited is every three years. But with the rapid paradigm shift from knowledge to competency-based curriculum and instruction, MET institutions are compelled to keep up by reviewing the curricula for Bachelor of Science Marine Transportation (BSMT) and Bachelor of Science Marine Engineering (BSME) programs against national and global industry standards almost every year. The current emphasis on Outcome-Based Education which gives premium to making students demonstrate what they "know and are able to do" provides a curriculum framework that outlines specific, measurable outcomes for every subject being taught. But more than the cognitive technical inputs and assessments specific to the target competencies and intended learning outcomes, the current maritime curricula and courses for both BSMT and BSME programs are infused with target human-related elements in MET such as the development of leadership and teamwork, and more recently, gender and cultural issues which are considered prevalent on board multicrewing vessels.
3. ***Adapting Collaborative Learning as an Alternative Method to Promote Complementary Roles amidst Diverse Gender and Cultural Orientations for the Attainment of Group Goals.*** Rooted in Vygotsky's sociocultural theory which views learning as inherently a social process [110], collaborative learning is mediated in accordance with the students' context and experience with peers. This theory holds a notion of learning as something that is embedded within social events and occurs as the individual interacts with people, objects and events in his environment. Hence, in a collaborative setting, students learn the target lesson or skill not just as an isolated matter. They learn it in the context of their assigned roles in a given situation as they relate with others in the group or team. In collaborative learning, students actively participate according to their assigned roles. Learning is facilitated by the instructor through diverse groupings (diversity in terms of gender, mental ability, and cultural background) and interactive discussion among members. Through this learning approach, students learn the target lesson and develop other non-cognitive skills such as leadership and critical thinking skills, and socio-emotional skills such as empathy, sensitivity, open-mindedness, and assertiveness (López-Mondéjar and Pastor, [34]), listening skills, negotiation skills, teamwork (Keser

and Özdamli, [33]) and cohesiveness. Such skills are considered crucial on board multicrewing vessels.

3.2.6. Conclusions

Language is a powerful tool to promote sensitivity to gender and cultural issues. It is one of the most powerful means through which sexism and gender discrimination are perpetrated and reproduced (Menegatti and Rubini, [35]). Gender bias loops from gender stereotypes or the beliefs about the attributes of men and women and what they are expected to be like. The maritime industry is stereotyped as a “man’s world” and women are perceived by some people to be weak and unfit for the seafaring job. In order to reduce gender bias, it is necessary to change people’s linguistic habits and stereotyping tendencies by encouraging the use of gender-fair culture-sensitive expressions. For instance, while it was natural to use the word “seamen” in reference to men at sea, with the inclusion of women in the workforce, “seafarers” has become a better lexical choice. “Human resource” has been preferred in place of “manpower”, “developing countries” is used instead of “third-world countries” and “All men are created equal” can be rephrased as “We are all created equal.” Cultural sensitivity springs from one’s cultural awareness that people come from multiple different cultures---based on religion, ethnicity, nationality and other factors---and that they have different attitudes and outlooks. It involves accepting those differences without insisting your own culture is better, or that everyone should do it your way. Cultural-sensitivity skills are sometimes called cultural competence, or the ability to work alongside people with different cultural attitudes and behaviors and to do so effectively (Sherman [36]). In the academics, the use of gender-sensitive language in the classroom as well as in the instructional materials used is a big deal and so, tact and sensitivity is expected among instructors and academic practitioners.

Strengthening the sense of leadership and teamwork can be done through curricular and co-curricular activities. In MET institutions, equal opportunities are provided to male and female students to perform in class and participate in extra-curricular activities. Role assignments of students in group activities such as simulations, role-playing, group research, and group presentations are fairly and appropriately distributed according to their dominant characteristics and cultural background. In like manner, opportunities to hone their leadership skills are equally provided to male and female students through their participation in clubs and organizations and involvement in programs as speakers, masters of ceremony, facilitators, contestants, and research presenters.

The female presence in MET institutions has been given importance and has played a significant part in terms of governance, policy and decision-making, curriculum and course design, and curricular and extra-curricular activities. Respect to cultural identity and diversity is encouraged by adapting various leadership and coaching skills that equally engage male and female students to develop their communicative competence. This type of competence encompasses the ability to respond to realistic situations as they interact with others-a social skill that MET institutions need to prepare their students for as future officers in a work environment characterized by gender inequality and cultural diversity. Emphasis is not anymore just on the acquisition of cognitive skills and the attainment of technical competencies but also on the acquisition of soft skills such as adaptability and flexibility, gender equality, and cultural sensitivity among others. However, all these initiatives could remain unsuccessful if the maritime industry continues to limit the opportunities accorded to women seafarers. Male dominance will still diminish the value and contribution of women as member of the workforce. Developing cultural awareness and sensitivity to gender differences among students will continue to be useless if seafarers still experience discrimination because of their gender, color and race.

A coach is a figure relatively new in the maritime sector. Before this, the figure of Leader has coped all the attention and formative efforts.

Clearly, both Leadership and Coaching are similar but not the same discipline.

Internal and external factors ease the coaching in shipping (on shore, classical industry, conditions are not so supportive.

We can therefore conclude that leadership and coaching are closely related and linked through the use of the integrative coaching process and tools as a basis for exercising better leadership based on trust and empowering the skills of the team for which we are responsible as leaders.

Coaching in shipping always will be more effective thanks to the particular contextual conditions (same place of working-living; high exposition to the coaches (time); sharing risks of the maritime adventure (safety and security); high hierarchy on work).

Although coaching and leadership are not the same discipline, transition between the two must be relatively simple. Even so, the training requirement will always exist. As with leadership, it is a fundamental requirement to train crews in coaching.

The figure of the Captain will require in his conversion from Leader to Coach to enhance his skills in this regard. Group guidance underlines behavior change based on an understanding of own limitations.

4. Research Findings on Women Leaders in Shipping as Role Models for Women Seafarers

4.3. Women Leaders in Shipping as Role Models for Women Seafarers

GECAMET research has undergone several topics concerning management of human resources in the maritime sector, gender equality, and cultural awareness. Following are presented the results of the research made strictly on the topic Women Leaders in shipping as Role Models for other seafarers.

There have been made increasing efforts to gain an awareness of human element issues. And also, attempts were made to gain knowledge on gender issues in shipping and on the increasing role of women seafarers. Undoubtedly, a competitive maritime company is the one that clearly states the mission of reflecting a serious commitment to provide qualitative transport activities and can adjust rapidly to client's needs and opportunities providing competitive navigation. A competitive maritime company should also have the ability to resonate to global societal necessities in the maritime sector.

Many maritime companies are concerned with developing - and communicating more or less intense, responsible campaigns towards societal needs outside their companies. For example, they would commit to urgent medical cases; would offer sponsorships for educational institutions, conferences, forums, and fairs; would plant trees or support the disadvantaged. Such actions are outstanding and much needed in the society. But sometimes people needing help might be closer than expected. Namely, can be the case of maritime companies own employees: seafarers and crews that bring back direct return to the company. Seafarers are affected by several labor issues, and one of such matters is included under the broad umbrella of gender stereotypes. Maritime companies would probably need to start socially responsible campaigns firstly designated for and with their employees, by removing gender barriers at women seafarer employment and glass ceiling barriers after hiring a female

Following are presented the qualitative research results from the GECAMET study on gender issues in shipping obtained through structured online interviews of women seafarers. The target group of respondents was formed by women leaders in the shipping sector which are current seafarers with careers on board ship. Other data collected involved leaders defined as ex-seafarers working in managerial positions working on shore. Results of the interviews provide an excellent source of inspirational leadership.

Data obtained is useful for women seafarers that need models and motivational aid to join maritime education and maritime careers, and to surpass any future challenges. Data is also helpful for shipping organizations and MET to improve equal and adequate access to women to seafarer careers on board ship.

As mentioned previously in the first part of the GECAMET Report, literature on leadership of women seafarers is scarce. Notable input was provided by P. Tansey on behalf of IMO [112] and M. Zhao [3] - the principal researcher in the ILO/SIRC study on seafarer women commissioned by ILO in 2003 whose works are significantly cited. Several dissertation master program thesis on this topic were conducted within World Maritime University by H. Aggrey [10], S. H. Jo [113] and N. T. Azirh [114]. A more recent research on Gender Empowerment and Multi-cultural Crew (GEM) was delivered by K. Pike et al [111]. Other papers were written on issues of seafarer women of specific nationalities by women lecturers in shipping.

GECAMET study on seafarers' role models presents an overview perspective on the maritime sector considering the leadership and gender aspect. The objective of GECAMET study was to identify best practices that can be recommended by Maritime Education and Training (MET) and shipping institutions to improve the situation of women access to a seafarer career. The primary purpose of the study was to identify women in the maritime industry that are role models for other seafarers, to collect advice from such role models and to share them by making them public, in order to empower more seafarer women and to motivate more female that would want to chose the seafaring career. Another purpose of the study is to encourage both men and women become aware on the gender issues in shipping.

The definition of women leaders in shipping, agreed by the GECAMET team of researchers and considered primarily applicable to the GECAMET study presented below, was the following: a woman having seafaring experience, regardless time/rank/sector at sea, (though is preferable to find women seafarers with minimum work experience of 1 month by sea and current or past position of officer on board ship), having managerial positions in the maritime industry (currently or in the past), working onshore or offshore, no matter the country she is working now.

The research methodology consisted in a mix of methods used, namely:

- 3 brainstorming working sessions with academia researchers having diverse experience on shipping issues and
- 1 focus group held on 12 April 2017 at headquarters of a Romanian Maritime Education and Training institution with 34 stakeholders of the maritime business, including an IMO Ambassador, an ITF representative, several owners of shipping and crewing companies, female seafarers and Maritime Education and Training teaching staff. The focus group has followed the Focus Group Guide issued by the Research Directorate-Defense Equal Opportunity Management Institute (2015) and the data obtained were centralized manually.
- Online interviews/ questionnaires with seafarers which can be considered role models for other seafarer women. Due to low response rate to the online interviews, significant more data were collected through shorter online questionnaires type Google forms.
- Beside interviews, secondary research methods used in our study were: comprehensive literature review on gender in shipping and observations made in the maritime industry and MET institutions.

Research based on in-depth semi-structured interview interviews had the following methodology:

1. During the brainstorming sessions within the working meetings held with GECAMET members in May 2017 and during the focus group were collected sufficient information to design the draft of the interview plan. An insightful input was brought by Ms. Minghua Zhao, who has shared a suggestive interview schedule prepared for women seafarers used in her study [3]
2. GECAMET team has established several target groups criteria to identify the profile of women leaders. The interview questions were structured in two parts: demographic information and core questions, containing diverse issues related to experience on board, motivation, challenges, and support. The demographic information part of the interviewed person required details on nationality, age and current status: seafarer or ex-seafarer currently working on shore.
3. The second stage of research was pilot testing the interview plan with eight selected ladies employed by the maritime industry. These persons were asked to share their opinions on the draft of

the interview plan. They had suggested resizing the interview by reducing the number of demographic and core questions up to 10. Also, was underlined the suggestion to send the interview by email.

4. After the pilot testing ended, we have reconsidered the interview questions and the interview plan. We have removed unnecessary items that were intended only to discover women career issues because such items were previously researched in other studies. We have formulated new questions focusing on effective actions and solutions needed to address the issues of women seafarers.

5. The questions were submitted through Google forms by email. Invitations to participate in the study were made in person during face to face conversation, by phone or, email and through social communication platforms (Facebook, LinkedIn, Whatsapp) and in person to targeted female seafarers. At this study were invited more than 220 female seafarers alumni and 55 women leaders in shipping (as defined above).

Following are presented 47 results obtained from the GECAMET study targeting seafaring women with current experience onboard vessel. Some of the 47 valid responses obtained and are enlisted in Table 1, with no alienation over the spelling and no other addition or comment on behalf of the researchers.

The interview included demographic questions. The most crucial issue of the discussion related to the women leaders in shipping topic was: “What advice would you give to females who want to pursue a career in seafaring on board ship?” To this question were received 47 replies out of which only 32 had valid content, as listed below in Table 2. A second column indicating the nationality of the respondents is added in Table 2.

Table 2. Replies of women seafarers target group

Questions	What is your nationality?	What advice would you give to females who want to pursue a career in seafaring on board ship?
Nr.crt.		Replies
1	Filipino	You must have the courage and strong heart to follow your dreams in life.
2	Belgian	Fight for what you love...
3	Filipino	Seafaring is a very challenging Job. For you to prevail, you must know your rights and must know the right people who can help you when things go wrong. Respect can't be bought nor it can be forced on people. You have to earn it. You can start by respecting yourself.
4	Filipino	Stay strong and be positive all the time. Don't let men intimidate you because they are men. Work with them and show your worth as part of the team
5	Filipino	Never let your gender be a hindrance to your career. Be dedicated to your work and prove that female can also contribute to the development of maritime industry so that more companies will hire and accept females seafarers to work onboard ..
6	Romanian	None
7	Filipino	Be yourself and be brave. Don't be afraid to open up when you are being sexually harassed. Know your rights. Fight for your rights. Be tough onboard and don't let other people shatter your dreams.
8	Swiss / Australian	Have an accomplished shore career and some finances behind you first before thinking of going to sea. I went to sea after a nursing career of 15 years - at the age of 36. Now qualified as Master Mariner Foreign-going and currently sailing as Chief Officer, worldwide. I have still financial depth of 50'000.- from my study time as I was a self-funded student without sponsorship or scholarship all the way to Master.
9	Australian/ British	Life at sea can offer you a physical and mental challenge. It is a career choice that can open many opportunities. Don't be afraid to be the only woman in a male dominated environment. Create the change you want to see in the world.
10	Australian	-
11	Australia	It can be an amazing experience if you get a supportive and good crew, if you want to have a family you can only do it when you are young, or when kids have grown up
12	Australian	Stand strong & work hard ethically. Someone will notice you and word will spread.
13	Australian	-
14	British	-
15	Australian	Be flexible, work hard, act and treat yourself as an equal to encourage others to see it that way.
16	Polish	Be very strong, never give up, believe in yourself and never let anyone tell you that it's not a place for you. Women are strong, confident and smart and it can be easily adapted in a seafaring.
17	British	-
18	Australian	You have every right to pursue your dream. Don't be disheartened by other people's experiences, don't set yourself aside from your male colleagues, get in there, lift the heavy things and do the dirty jobs. Let your attitude and your work speak for themselves, you will encounter people who are threatened by you, Kill them with kindness! Don't let the societal pressures of marriage and children get in the way of what you want and most importantly, WEAR SUNSCREEN
19	British	-
20	Romanian	Your knowledge is essential! Do not let the man decide what you should do! Since you work and learn you can handle everything!
21	Dutch	-
22	USA	I know things are slowly changing for the better. Unfortunately, we are still way off from seeing true equality in this industry. Unless a lucky star is looking down on you with the rare decent captain..... RUN!!!! Run away fast!!! Men still believe we are nothing but a disease on the water unless we are there to service them. Especially, if you are pretty. Then you are really screwed! Sad, but true....
23	British	To be in a man's world you must have a good sense of humour. Don't let anyone make you feel as if you are lesser than them. There are many many men out there who are supportive of females in the marine industry, it's not all negative.
24	German	-
25	French	-
26	UK	Develop a thick skin
27	British	You have to be better, faster and stronger than the boys to be considered in this Industry
28	Tunisienne	-
29	Filipino	Focus on your career and be strong mentally, emotionally and physically.
30	Filipino	Be strong, always prepare for the guys to harass you so better learn self defense and you must have an idea what to do in case of harassment
31	Filipino	-
32	Filipino	Seafaring is a way of life. If you want to pursue it, be sure that your reasons are valuable enough to empower your maritime plans. Be prepared and equipped with proper knowledge, skills and attitude. Enjoy the process of maritime journey itself because it brings enlightenment and fulfillment with every step towards embracing the experiences you are subjected into. Be a passionate reader and love your chosen career. Celebrate your achievements. Challenge yourself and do it. But always balance your life and never stop doing what fulfills you because however small your part is, you always contribute to a greater purpose and a bigger role of maritime family. Above all, always seek God's will first. God bless!
33	Romanian	-

34	Filipino	Hang on. Pursue your goals and trust God and the rest will follow.
35	Filipino	As my previous captains told me, "you have to grow hair on your chest" meaning I should be stronger physically and emotionally. There will always be sexual discrimination on board and a lot of physical work; you don't have to do it on your own all the time. It is okay to ask for help but as long as you can do it on your own, do it. Aim for the highest peak.
36	USA	-
37	Romanian	Go ahead
38	Romanian	Don't let anyone make you feel unworthy just because you are a female.
39	Romanian	Fight for your dream and let people know how strong you can be!
40	Romanian	-
41	Romanian	To do it and to be very strong
42	USA	You have to work 150% harder to be considered half as good as the guys. But, it is getting a little better. I have been lucky enough to be in a union and on the same ship for the past 7 years and in the 16 years that I have been sailing I have noticed things getting better. It may be because I am older and more likely to say something about inappropriate comments than I was when I was a 22 year old fresh out of school. It may just be that the older more sexist guys are retiring. Who knows what it is, but there is still a lot of room for improvement.
43	German	-
44	Hongkongese	Provide leave or enough rest time when female seafarer is suffering from monthly period pain, or pregnant.
45	American	Know your job, do your job, take care of your people. Document everything. Be better than everyone else. Be yourself. Join the union. Speak up for yourself on behalf of other women. Be tough and don't take it personally. Have a strong support network and identify away from the ship. Have other job and career options. Join a network of female seafarers (like WISTA!) and seek out both female and male mentors. Ask early and often, don't assume you can do it all yourself. Know that most discrimination and harassment will occur outside the lines of being able to report it - and that if you do, it's a very antagonistic process that will pit everyone against each other and lead to little positive resolution. Best to be fierce and try to fend off problems before they arise. Finally, cultivate allies. You will absolutely need the support of men, particularly white men, to get ahead in a male-dominated industry.
46	USA	I would tell her to check out and become a member of WomenOffshore.org. She'll find role models and resources for her career on the water.
47	US	You have to LIKE the work on deck, in the engine room or galley.

Statistically, out of the initial number of 47 replies obtained from women seafarers, 15 were invalidated as containing no input to the question related to advices, they were still considered as participating to the survey through providing other useful research data. A total of 32 replies were valid for the above question, representing 68,085% of the total answers. Within the GECAMET study, replies received from women seafarers and published in this article will be further compared to responses received from other target groups, namely: male seafarers, ex-female seafarers currently working in jobs onshore and ex- male seafarers working onshore.

Female seafarers participants to the current study had the following ranks: most of them were deck officers, more precisely 29 out of 47 (representing a percentage of 61%). Some four respondent were ship captains (8,5%), out of which 2 were captains on chemical tankers. The captains had the following nationalities: Belgian, Australian/British, British and Tunisian. At the study have also participated seven engine officers (14,89%) while the rest of the respondents were ratings and catering.

Respondents were aged between 22-60, with medium average 32,6 years old.

Related to the social status of the respondents, 32 out of 47 were single and never married (68% of the respondents), seven were married (out of which only two were with children); one was unmarried with children, four were divorced, and three were de facto.

Out of the 32 valid replies, all except one represented motivational encouragements and sources of inspiration for women seafarers to develop their career. Beside motivational quotes, several useful indications were received for seafarer women, as to join a union, to join Women's International Shipping & Trading Association (WISTA) network or WomenOffshore.org to find and contact role models and resources for their sea career.

WISTA is an international networking organization whose mission is to attract and support women, at the management level, in the maritime, trading and logistics sectors, while WomenOffshore.org is an online organization and resource centre supporting diverse workforce on the water.

As conclusions, in-depth interviews are considered best practices research methods recommended by the research and academic community for collecting qualitative research data. Online discussions are easy to organize and flexible to participate but have the challenge of incapacity to follow up answers.

In GECAMET study on women leaders, the target group of respondents was formed by women seafarers with current sea service. At the end of our study the team concluded that the profile of woman leader analyzed in our study had the following average characteristics: had the rank of deck officer, had a global nationality coming from diverse parts of the globe, had a medium age average of 32,6 years old, are single and were never married and are open to share motivational encouragements and sources of inspiration for other women seafarers.

Results of the interviews, as enlisted in Table 1, provide an excellent source of inspirational leadership. Data obtained are useful for MET personnel during classes of management of maritime human resources. Shipping organizations can also use data to improve encouragement tools, equal and helpful access of women to seafarer careers on board ship. Even the replies collected can be used to provide an effective gender policy implemented in the shipping company. MET and shipping institutions should collaborate in establishing actions of women empowerment as conferences, training sessions, and research delivered by the academic. To develop women leadership skills, the MET curriculum should include specific courses on women leadership, gender equality, and cultural communication. The shared experiences of women leaders help develop leadership skills of other women in shipping through the power of example. Involving in organizations that help connect women seafarers with other women in managerial positions is another useful way of sharing experience, knowledge, and valuable advice.

The primary purpose of the study was to identify women in the maritime industry that are role models for other seafarers, to collect advice from such models and to share such input by making it public, to empower more seafarer women. Another purpose of the study is to encourage men and women awareness on gender equality in shipping.

4.2. The Women Leaders as Role Models for Women Seafarers: The case of the MAAP,

Philippines and CMU, Romania Women Leaders

MAAP and CMU women who are in the leadership positions, says that they had reached their place through perseverance and working smart, not hard. They never settle for less, always striving not to be second best in everything they do, aware that real success can only be found by crossing time zones, cultures, and cruising in fast speed ahead.

The most successful MAAP and CMU women leaders have grabbed every opportunity afforded to them, and have the attitude of creating their opportunities with confidence. The foreseen components that may contribute to the development of the next generation of women leaders in maritime can be gleaned from their experiences.

Some of the noted characteristics of MAAP and CMU women leaders in maritime include the necessary knowledge cum skills; higher-order cognitive cum interpersonal skills and global mindset, dispositions cum attitude. Being passionate, curious, courageous, ambitious, and flexible are all essential, but there is no doubt that these characteristics also need to be enhanced.

Based on MAAP and CMU experience, observations, interview, and readings, there are essential components that would help support young women seafarers be developed into women leaders in maritime. These are not costly but proven to be very useful as all women leaders in maritime have shared the similar pattern on how they rose from the ranks

1. Empirical Basic Knowledge and Skills

One could think of this empirical and practical knowledge and skills as “information one needs to know.” School subjects within the traditional disciplines (math, science, language arts, history, etc.) fall into this category, along with a few additional “21st-century skills”.. This stage includes the

following sets of knowledge and skills: Native language literacy, Native language literacy, Numeracy and quantitative skills, Science; Geography, history, and politics, Social studies, Economics, Digital literacy- or Core subjects which are based on national standards for learning in the disciplines. A mastery of the knowledge and skills included in this stage is essential for the globally competent student for a few distinct reasons. First, core subjects such as algebra, English language arts, and history are foundational to other types of knowledge. Once the “three Rs” (*reading, writing and arithmetic*, the foundations of a basic skills-oriented education program in schools) have become relatively fluent, students are ready to master the major subject matters or disciplines of their culture. These foundation subjects are needed to acquire higher-order cognition later. Language, for instance, is the tool that underpins the acquisition of most forms of human knowledge and skills. But other basic disciplinary skills play a similar role. For example, the subject math admitted that computers could do basic math. However, having basic skills in math like addition and multiplication is needed if one is to learn algebra, and to know algebra is, in turn, an essential foundation for a whole host of other important skills. Computers, for instance, can only do things we want them to do but requires algebraic thinking in the computer spreadsheet. The computer can only do the calculations automatically when the proper macros have been encoded for it to do the calculations which require algebraic thinking. Indeed, a mastery of basic subjects is important from a human capital perspective. While the 21st-century employers want employees who can be creative, collaborative, cooperative and able to solve complex problems, they will still look at those skills only after they confirm that prospective employees have mastered the “three Rs”. A second reason that essential knowledge and skills are imperative is that they provide a springboard for teaching and learning about global issues. There are certain basic knowledge and skills that all young women seafarers should have acquired or be given access to beyond the standard education. Young women must have access to building these skills that help them move to success early in their careers. Some may be fortunate to have innate skills however, if not, then they must take basic courses and create opportunities to practice skills. If they are working, they may be fortunate to seek support from employers who may give the young women access to these courses through career development opportunities. It is more valuable and impactful if it started earlier on in the career. If not possible, it is worth enhancing one’s skills independently.

2. International Experience

Women leaders in maritime had maximized their travel opportunities. Travel brings an invaluable exposure to other cultures and ways of thinking which is relevant for maritime professional advancement, even in those that seem local and confined. As the maritime world becomes increasingly globally interdependent, and actions that occur in a place that looks far away, unavoidably affect, directly or indirectly everyone. International exposures challenge thinking which in one way or the other can be very healthy. The skills developed from unfamiliar settings are valuable, and so are the experiences that can be learned from how different cultures deal with issues. It forces people to think outside the box and challenge them to find and apply, solutions beyond their comfort zones.

3. Mentoring

Mentoring plays a significant role in developing a maritime career. It is useful to determine the kind of efforts needed at various stages of career development. At multiple points in woman seafarer’s career, different types of mentoring are required. The needs for mentoring change from student years, to the first years out of school like shipboard training, to mid-career, to the most senior career positions.

Student Years

During student years, personal exposure and meeting with senior figures in the maritime field will help inspire young women to aspire to something higher. It helps to be able to see what success looks like in any given area, and to get a sense of accessibility. Lady cadets at MAAP and CMU are provided

leadership roles during the hosting of international conferences, leading students clubs of their choice and in extra-curricular activities to develop their confidence in leadership roles.

MAAP and CMU alumni networks are useful. The woman seafarers alumni return to speak openly about their experiences on board can make a real difference by making success accessible to women. Hearing success stories of career paths from the woman leaders themselves and seeing the outcomes of their labor, will tremendously inspire young women seafarers. Access to as many people, in as many maritime fields as possible, would provide the ideas of vast horizons of opportunity available for them. It can also trigger the imagination of young woman seafarers about various career paths available for them be it in teaching, training, crewing, manning the vessel, onshore or off-shore, etc

On the Job training (Shipboard training)

The shipboard training of the young women's early career is a time to explore, to learn and to discover other options, preferences, and interests for the maritime job. During the training, it is most useful to have exposure to a vast array of people in the maritime profession. It is also good to introduce the website of the group of "GECAMET" or "WIMAPhil" composed of woman leaders, where young woman seafarers can communicate with for advice and guidance, to help them hone their ideas on their maritime career path. Women leaders as mentors can be found many places. They genuinely inspire woman seafarers as these women leaders are admired and may serve as role models. At MAAP and CMU, the establishment of a women seafarers cadets club prove useful and encouraging for all the lady cadets. MAAP and CMU participation to the GECAMET project funded by IAMU along with other maritime institutions is also helping, as studies on gender equality, and cultural awareness has been jointly analyzed to come up with scholarly inputs and outputs.

Mid-Career

It is useful to have women maritime networks like GECAMET as a means of meeting people in the maritime field to get to know like-minded and like-skilled people. Equally, if not more important for individual development, is having one or two people who know the person well and can help to counsel them directly and specifically about options, choices, and direction and concrete ways of achieving goals.

Career Success

The time when women leaders are at the top of their careers is also a good time for alliance and mentoring. It is a time when women can share their expertise or get more involved in their areas of interest- for example, on board the vessel—can be their rank (operational or management level); a business that can be directorships; in maritime education and training or even in politics, for a policy-making or influencing positions.

Mentoring one another thru networks or peer relationships can be very useful and efficient. Creating a close group of trusted friends and peers like GECAMET, composed of global woman leaders who are generous, and share similar concerns for woman seafarers and each other's success can help bring the goals that seem distant much more achievable, just like in the MAAP and CMU case.

4. Role Models

Role models are an extraordinarily fruitful way to inspire young women to aspire to great things. Role models can be found anywhere, close as well as in those at a distance. There are two kinds of role models. First, those who help woman seafarers think about the type of woman leaders they want to be through examples of bravery, integrity, kindness, and other admirable characteristics, exemplified by woman leaders, in their actions every day and the way they work in the maritime world. Second, there

are those who help woman seafarers aspire to roles that perhaps they have not thought of before or not encountered personally - like women leaders in the maritime sector be it in the government, shipping companies, political, cultural, or social movements.

Seeing women in particular, anywhere in the maritime world, succeeding in an ever-widening array of roles helps inspire young women seafarers to broaden their expectation for their possibilities and may create their opportunities for success. It is an excellent practice to openly and publicly acknowledge and celebrate the work that women leaders in the maritime do around the world. It is essential to recognize the critical roles that women leaders in maritime have played in developing societies and economies. By emphasizing their maritime contributions and work, it helps the countries, organizations, companies and even individuals to realize that this is not unusual, but rather that it should be the norm. It also helps to bring to light how these women leaders have made the journey to their positions and make that journey more accessible for young women seafarers.

5. Starting Early for Higher-Order Cognitive, Metacognitive, and Interpersonal Skills

These are skills that allow woman seafarers to access, manage, interpret, and apply knowledge. It also includes specific interpersonal skills that are necessary for maritime workplaces that need proper communication, collaboration, connectivity, and cooperation. Skills that may be referred as “what one needs to be able to do.”

The following is not a comprehensive list but includes the most commonly cited higher-order skills found in the literature and most 21st-century skills frameworks: Critical thinking, Problem-solving, Creativity, Innovation, Information literacy, Communication, Collaboration, Flexibility and adaptability, Lifelong, self-driven learning. These skills are interrelated and overlapping and should not be thought of as discrete subjects. Also, they complement rather than stand apart from the knowledge and skills. Information literacy can be defined as the combined abilities to locate, critically examine, evaluate, interpret, synthesize, prioritize, and apply information.

There is a need to start early to make sure young woman seafarers know they are capable of reaching great heights. It begins in the most youthful years of their schooling with words of encouragement and aspiration. Equally important is ensuring that young women absorb these messages both openly and through example. Even the most closed societies and cultures can make shifts over the generations and if they start to change their mindsets

Creating an environment where women seafarers can succeed is required. Noted are the identified things needed to help create an environment in which women are prepared and encouraged to rise to leadership in the maritime arena. They are policies that support women to success; workplaces that reward, encourage and promote women and educational systems that educate women to the highest standards

6. Global Dispositions, Mindset, Perspectives, and Attitudes

These competencies are not the so many skills or specific sets of knowledge as they are behaviors, mindsets, values, and sensibilities like:

- a. A curiosity to learn about the world and its people;
- b. An awareness of one's own and others' cultural, political, geographical, or socioeconomic perspectives;
- c. An appreciation of nuance and complexity;
- d. Knowledge of and willingness to act in ways that acknowledge global interconnectedness;
- e. A sense of personal action and belief in the capacity to affect outcomes and make a contribution;
- f. A sense of responsibility and a concern for fairness, justice, and progress on a global scale.

It is essential to understand that these dispositions cannot come from schooling alone. Education is a critical space in shaping such attitudes. Attaining a global consciousness will help woman seafarers to become competent as well as responsible workers and citizens in an interdependent world.

Never settling, always being driven, and still seeking new experiences - these are the hallmarks of the most senior women leaders in the maritime world. All concerned must play a part in helping the woman seafarers succeed, as countries, economies, and futures depend on their success towards sustainability, peace and global development.

5. Research Findings on Economic Efficiency of Shipping Companies with Mixed Crews

5.1. Gender awareness, innovation and intercultural communication on board ships

Following are the results of the second work package of GECAMET study, consisting in an analysis on gender awareness, innovation and intercultural communication on board, ran on 28 international shipping companies. The database was obtained through the GECAMET survey applied online through Google Forms tool.

The first step of the analysis was to evaluate the quality of the data (variable control, variable construction and quality of answers – missing values treatment). The second step consisted in constructing the database in SPSS (Statistical Package for Social Sciences – IBM, version 24) (editing the database – variable construction and coding, othe qualitative procedures). The second step consisted in running the analysis procedures. Results of this stage are presented hereinafter.

The analyzed sample consisted in 28 respondents, representing several types of companies that activate in the maritime sector. Table 3 below shows that most of them are employed in companies that deal with crewing, manning and human resource activities for the maritime sector (almost half of the sample – 48.1%).

Table 3. Employer's type

	Frequencies	%	% - valid
Owners	4	14.3	14.8
Shipping company	4	14.3	14.8
Ship management companies	6	21.4	22.2
Crewing, manning, HR	13	46.4	48.1
Total valid	27	96.4	100.0
Missing values	1	3.6	
Total	28	100	

The majority of the employing companies have the headquarter in the Philippines (28.6%). The second largest group is based in Romania, as can be seen in Figure 1.

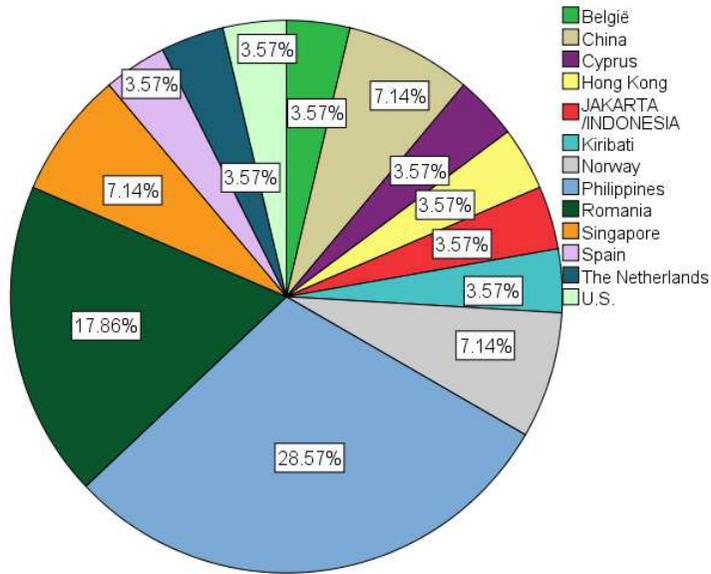


Fig. 1. The country in which is based the employer

The next questions are related to the necessity of actions from the part of different actors of the maritime sector in order to attract more women towards seafaring careers. For all these questions were expressed in the form of Likert items with 3 possible answers:

1. Not necessary – “-1”
2. Probably necessary – “0”
3. Very necessary – “1”.

Eleven such actors were considered in the questionnaire. Most of the respondents chose the solution “very necessary” for the employer. Basically, seafarers questioned claim that the involvement of the employers in this process is very necessary, as their actions could attract women towards such a career (table 4). In the same time, the smallest share of respondents choosing the answer “very necessary” was obtained for researchers in the field. For comparison reasons, we present comparatively the plots of the two variables (for the two types of actors discussed above).

Table 4. The necessity of involvement of actors (stakeholders) on the maritime market to increase women’s participation in shipping

Actions necessary to attract more women towards seafaring careers?	Frequency	%
5.1. Actions developed by employers of seafarers:Not necessary owners, ship management companies, crewingProbably necessary companies and other companies that can employVery necessary more women seafarers to work on board ship	3 5 18 Total	10.7% 17.9% 64.3% 100.0%
5.2. Actions of employees (Seafarers and seafarerNot necessary unions)	3 5 16 Total	10.7% 17.9% 57.1% 100.0%
5.3. Actions developed by other companies in theNot necessary maritime sector that can employ women seafarers onProbably necessary shore, when women decide to stop working on boardVery necessary	5 8 12 Total	17.9% 28.6% 42.9% 100.0%

ship	Total	25	100.0%
5.4 . IMO (International Maritime Organisation) through amendments to maritime conventions	Not necessary	5	17.9%
	Probably necessary	4	14.3%
	Very necessary	15	53.6%
	Total	24	100.0%
5. 5. ILO (International Labour Organization) through amendments to Maritime Labour Convention and to other labour conventions	Not necessary	4	14.3%
	Probably necessary	6	21.4%
	Very necessary	14	50.0%
	Total	24	100.0%
5.6. UN (United Nations) through social campaigns, conferences or scholarships	Not necessary	5	17.9%
	Probably necessary	6	21.4%
	Very necessary	14	50.0%
	Total	25	100.0%
5.7. NGOs (non-governmental organisations) actions, e.g. through campaigns of awareness and women seafarer empowerment	Not necessary	3	10.7%
	Probably necessary	6	21.4%
	Very necessary	15	53.6%
	Total	24	100.0%
5.8. Provider companies connected directly or indirectly to the maritime sector, e.g. producing gender-customized work protective equipment, tools or technological equipments used to ease or optimize the work of female seafarers on board ships	Not necessary	4	14.3%
	Probably necessary	5	17.9%
	Very necessary	15	53.6%
	Total	24	100.0%
5. 9. Universities and MET (Maritime Education and Training) institutions, by accepting women students to maritime studies and by developing courses on gender equality and non-discrimination in maritime domain	Not necessary	4	14.3%
	Probably necessary	5	17.9%
	Very necessary	16	57.1%
	Total	25	100.0%
5.10. Researchers e.g. by developing studies on gender in shipping to identify suitable solutions for current issues	Not necessary	3	10.7%
	Probably necessary	8	28.6%
	Very necessary	11	39.3%
	Total	22	100.0%
5.11. Mass-media and social media, e.g. by advertising seafarer women as role models for other seafarers	Not necessary	3	10.7%
	Probably necessary	6	21.4%
	Very necessary	16	57.1%
	Total	25	100.0%

Figure 2. The necessity of employers' involvement in order to increase women participation in the maritime sector.

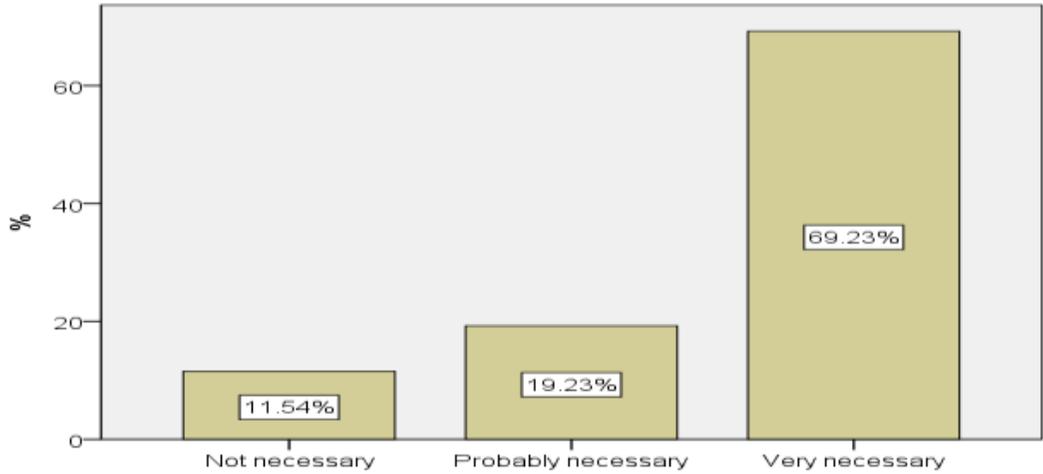


Figure 3. The necessity of researchers' involvement in order to increase women participation in the maritime sector.

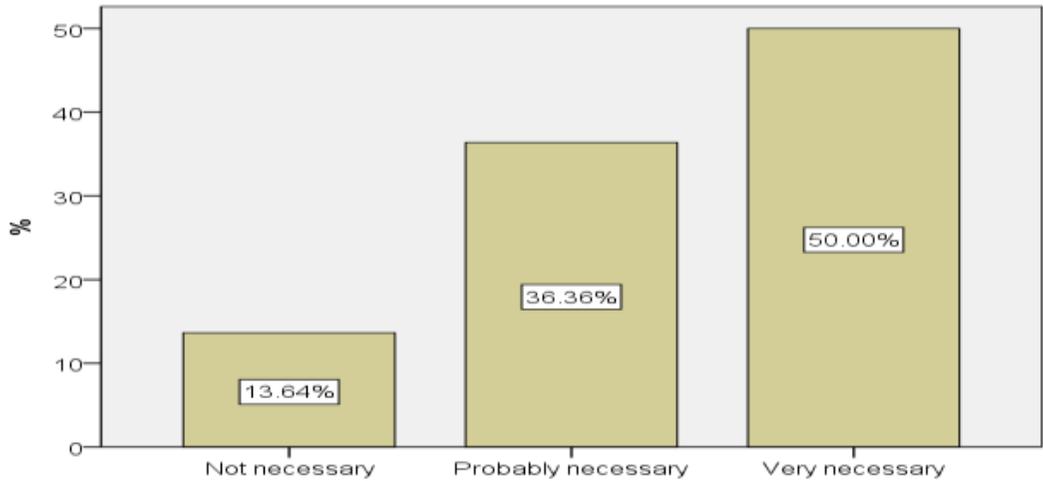


Table 5. Gender requirements to be included in the MLC.

	Responses		Percent of Cases
	N	Percent	
Gender customized work protection equipment should be available on board vessel for seafarer women	16	17.2%	57.1%
Gender separate spaces for toilets and showers should be available on board all vessels	13	14.0%	46.4%
Sanitary bins should be available on board vessel for disposal of feminine hygiene products	13	14.0%	46.4%
Feminine hygiene products should be available in bonded stores on board ship and in ports	16	17.2%	57.1%

Private and hygienic disposal method for feminine sanitary products should be available on board vessels	13	14.0%	46.4%
Company policies on Gender Equality should be implemented and communicated by the employers of seafarers	20	21.5%	71.4%
Other	2	2.2%	7.1%
Total	93	100.0%	332.1%

In respect to the gender requirements to be included in the MLC, the highest frequency was obtained for the last choice - Company policies on Gender Equality should be implemented and communicated by the employers of seafarers. The 28 respondents made 93 choices, out of which 20 were of this category. This represents 21.5% of the responses obtained and was chosen by 71.4% of the persons questioned. On the second place came two variants - Gender customized work protection equipment should be available on board vessel for seafarer women and Feminine hygiene products should be available in bonded stores on board ship and in ports, both with a share of 17.2% of the responses and chosen by 57.1% on the individuals. There were also 2 respondents that gave other answers: (1) I do not know what kind of vessels other owners have, but on our vessels all have their own cabins, shower and toilets. You do not need a gender equal; and (2) Can't think of any .

Each respondent made, on average, 3.32 choices.

Table 6. Reasons for hiring seafarer women.

	Responses		Percent of Cases
	N	Percent	
To benchmark	5	6.7%	18.5%
To have broader talent pools	11	14.7%	40.7%
To innovate and grow	11	14.7%	40.7%
Because complementarity and diverse approach are better for problem solving	11	14.7%	40.7%
Improved social climate on board ship	8	10.7%	29.6%
Positive changes in behaviour of crew	11	14.7%	40.7%
Female seafarers work increases work motivation of the rest of the crew	8	10.7%	29.6%
Employing women seafarers is only a temporary solution when no male seafarers are available	4	5.3%	14.8%
NONE of the above. My company does not employ women seafarers	3	4.0%	11.1%
Other	3	4.0%	11.1%
Total	75	100.0%	277.8%

Afterwards, the respondents were asked to choose reasons for employing and reasons for not employing seafarer women. In the first case (see table), 4 out of the 10 possibilities were chosen by the same share of persons – 40.7%. Each of them accounts for almost 15% of the answers given:

1. To have broader talent pools,
2. To innovate and grow,
3. Because complementarity and diverse approach are better for problem solving,
4. Positive changes in behaviour of crew.

In the case of 11% of the respondents, the company does not employ women, while the same share gave other solutions: We employ women because there are no differences, Does not matter whether female or male as long as meets the company entry standards, Gender does not matter.

Each respondent made, on average, 2.78 choices for employing and 2.36 for not employing women.

Table 7. Reasons for not employing seafarer women.

	Responses		Percent of Cases
	N	Percent	
Female seafarers can get involved in sexual affairs with crew members and this affects the climate on board	11	21.2%	50.0%
Female seafarers can't accomplish some heavy physical tasks and the work must be done by other staff	9	17.3%	40.9%
Female seafarers on board ship might change negatively the behaviour of crew	8	15.4%	36.4%
Male crew would feel discomfort in getting orders from women	6	11.5%	27.3%
Jealousy, rumours or conflicts might appear on board ship	8	15.4%	36.4%
Low work productivity	5	9.6%	22.7%
Other	5	9.6%	22.7%
Total	52	100.0%	236.4%

Among the reasons for not employing seafarer women, half of the sample stated that female seafarers can get involved in sexual affairs with crew members and this affects the climate on board (see table 5). A higher share gave other reasons (22.7%, almost 10% of the answers):

- (1) Costs involved during repatriations and termination of contracts in case the female seafarers get impregnated on board;
- (2) We employ any gender as long as they meet entry standards;
- (3) Not applicable for our company. We hire Female seafarers only when they are competent for the job in the same way we judge our male seafarers;
- (4) Hire qualified people.

In conclusion, the main reason of shipping companies for not employing seafarer women is that female seafarers can get involved in sexual affairs with crew members and this affects the climate on board. A future research should be made in order to analyse if the above conclusion is a fact or a gender stereotype and what effective solutions would be necessary.

5.2. Key Performance Indicators (KPI) for Evaluating Economic Efficiency of Gender Policies in Shipping Companies with Mixed Crews

The performance of a business can be measured on the efficiency of processes developed within. In the GECAMET study were proposed 55 Key Performance Indicators (KPIs) that can be used as effective measurement indicators for evaluating economic efficiency of shipping companies on shore with mixed crews, as well as efficiency of mixed crews on board a vessel. The KPIs were assessed, validated and re-assessed through a four-stage research methodology. The results of the research provide useful quantitative and qualitative tools for evaluating the performance of the shipping companies, considering the perspective of shipping gendering. The approach of establishing particular KPIs for gendering shipping and mixed crews is so far the first ever made. Also provided in the article is a classification of the proposed KPIs in categories related to financial costs, time costs, health & safety, education, and social.

In order to face the competitive environment in the maritime industry, shipping companies should update their HR policies by making them gender-friendly and by ensuring gender equality and cultural awareness on board their ships. The appropriateness of a gender policy can be measured by the management of a company through the metrics of Key Performance Indicators (KPIs), a tool used in performance measurement and holistic performance evaluation to make important strategic decisions.

Overall, KPIs help management representatives to make important strategic decisions and to strive for the best position and benchmarking.

The aim of the research is to offer to shipping companies a useful tool for evaluating the effects of gender policies implementation. This is an original approach on establishing effective measurement indicators for evaluating economic efficiency of shipping companies with mixed crews. The research is relevant for knowledge advancement in the domain of performance management. The established KPIs can be used for further research analysis, scaling and validation.

The gender KPI study started since 09-14 May 2017 when a consistent number of KPIs were proposed and discussed during three working meetings and discussion sessions organized within the GECAMET project, in Constanta, Romania, at the headquarters of Constanta Maritime University, with 10 international researchers of the GECAMET project from nine maritime education and training institutions across five continents. In the first stage of the study, the researchers had contributed to the discussions personally or through the online conference system in identifying an appropriate KPI database using their diverse and complementary professional experience cumulated in: efficiency assessment of shipping companies, professional expertise regarding multicultural (mixed) business work environments in both on shore and off shore business, experience in intercultural coaching, training and consultancy, organizational anthropology, study of the cultural differences and scientific expertise on performance and multicultural vessels.

The second stage of the research consisted of the assessment of the KPIs previously proposed, through 10 interviews made face to face and by phone with stakeholders from the maritime industry, namely crewing, shipping and ship management companies.

The third stage was represented by the comprehensive literature review on KPIs met in shipping and in other sectors, gender, shipping policies, and gender policies in shipping.

The final stage of the research consisted of a re-assessment of the KPIs previously proposed, by considering the opinions of the interviewed stakeholders and the insights gathered from the literature review. Other KPIs were added. The results of the final stage of the study consisted the establishment of a comprehensive classification of 55 KPIs needed for evaluating economic efficiency of mixed crews and for evaluation of shipping companies with mixed crews. The final stage of research, with results obtained so far and presented in the current article, ended in March 2018. The GECAMET initial research target, as discussed with the research financing body, was to propose 10 KPIs for evaluating economic efficiency of gender policies implemented by shipping companies, focusing namely on 5 KPIs for evaluating performance of shipping companies with mixed crews and on 5 KPIs for evaluating performance of mixed crews on board ship. During our research we have managed to maximise the proposed target number of KPIs from a minimum of 10 to an actual total number of 55, by identifying specifically 31 KPIs for evaluating performance of companies with mixed crews and 24 KPIs for evaluating performance of mixed (both gendered and multinational) crews.

For further understanding of this article, we shall assimilate to the generic term “shipping company” all the types of companies that include crewing and recruitment activities: crewing companies, crewing operators, or ship management companies.

During the four stages of our research we have considered the following five criteria for KPI selection, acknowledged and adapted from the 2015 study “Indicators of Gender Equality” (ECE/CE/37) prepared by the Task Force on Indicators of Gender Equality for the United Nations Economic Commission for Europe, UN, New York and Geneva [93]. The criteria were the following:

1. The indicator clearly addresses a relevant activity or policy issue related to gender equality and/or women’s empowerment in shipping;
2. The indicator is conceptually clear, easy to interpret, and has or might have in the future an agreed international definition;
3. The indicator is sensitive to changes and any changes in the value of the indicator will have a clear and unambiguous meaning;
4. The indicator is feasible, robust and reliable; and

5. The indicator can be comparable over time and enables international comparison. Usually time periods are recommended to be within the framework of one year, but time periods can vary and are established at the discretion of the shipping companies.

Operational performance, efficiency and effectiveness of a business and of the processes undergone within are evaluated through financial indicators provided by the accounting departments. Key Performance Indicators (KPIs) represent measurable expressions for the achievement of a desired level of results, in an area relevant to the evaluated entity's activity [94].

KPIs originated from the shipping sector, precisely from the 13th century, while over centuries was spread to many industries and economy sectors on shore. According to Smart and Creelman (2013), the first use of KPIs was a reporting metrics tool for financial purposes invented in the 13th century by Venice merchants [95] and further formalized by the Italian monk Luca Pacioli in 1494 in a book of mathematics with the title *Summa de Arithmetica, Geometrica, Proportioni et Proportionalitie*. Performance assessments date far back in history, apparently from the third century when the emperors of the Wei Dynasty (221-265AD) rated the performance of the official family members (Banner and Cooke, 1984) [79]. The industrial period of the 1800s re-activated the concept and also performance assessment was used in the military domain. In the last decades, the use of Key Performance Indicators became again a popular metrics tool in the shipping business, at least according to the frequency of the latest research written on this regard.

Assessment of performance in shipping requires the establishment of a set of elements through which valuable judgments needed to reveal essential knowledge are made. Such knowledge includes how to achieve goals and tasks and how to improve the activity in order to reach business excellence for all stakeholders of a shipping company. The managerial perspective of establishing KPIs resides in the necessity of establishing measures to evaluate performance. Another perspective is focused on benchmarking and quantitative and qualitative metrics useful for decisional processes. Not the least, from another point of view, performance measurement through KPIs is a suitable tool to check achievement of organization goals, especially in the case of the latest trends in shipping gendering.

A novelty of the domain is the term "shipping gendering" referring to a generalized new trend in updating the organisational culture, manifested on board ship, with gender equality requirements. Organisational shipping gendering implies focusing on clear organisational goals that include gender equality as a natural trait of the cultural space, both on board ship, as well as inside on shore shipping offices and in the administrative facilities of shipping companies. Through shipping gendering the standardized organisational culture is renewed and improved by including, contemporarily, gender, in a sector where gender stereotypes prevailed until the recent 2000s period.

Performance metrics, issues and development is a widely analyzed concept within the international research mainstream and many researchers have made notable contributions in studying either key performance indicators in diverse domains or the performance framework applicable for further identification of valid KPIs. Among them, we have considered for our research the latest works of the following authors. Parmenter (2015) discussed misunderstanding, myths and unintended consequences of KPI measurement [87] while Brown, Gissel and Neely (2016) referred to financial auditors' performance and concluded that individual auditors' perceptions differ across experience level, gender and audit firm size for certain audit quality indicators [80]. Lin and Chang (2017) explained corporate performance connected to success in the international business and identified 20 key success factors generated along with the following four factor categories in the international market development: organizational capability, environmental scanning, international strategy and internationalization behaviour [86]. Ho et al. (2000) studied performance metrics as performance indicators used in comparison within and between organisations, focusing on improvements [83]. Lavy et al. (2010) conducted a literature review on measuring building and construction performance by using Key Performance Indicators classified into four major categories: financial, physical, functional, and survey-based [85]. Later, in an updated review, Lavy and his team renounced the 4th category in KPIs, namely the survey-based category. The KPIs were presented from the perspective of benchmarking and building performance, among other facility performance measurement practices including

balanced scorecard approach and post occupancy evaluation. The KPIs were arranged into three major categories, based on their purpose and content: financial, physical, and functional [85]. Similarly, we have classified the GECAMET proposed KPIs into three major categories: Financial costs, Time costs, Health & Safety, Training and other under-categorized KPIs.

Chan and Chan (2004) published a framework for measuring success of projects in the construction industry. They have developed a set of KPIs measured both objectively and subjectively through a comprehensive literature review and tested the validity of the proposed KPIs by case studies [81].

As regards performance in shipping and the relationship between employees' personality traits and their job performances, Shang, Chao and Lirn (2016) made an evaluation of performance of the freight forwarding service industry [90]. Tsai and Liou (2017) analyzed performance and motivation, concluding that motivation is not merely dependent upon environmental needs (payment), emphasizing the importance of non-monetary remuneration for better performance of the seafarers within the seafarers' recruitment management system [92].

Duru et al. (2012) made an investigation of the role of key performance indicators (KPIs) in third party ship management and their contribution to the Shipping performance index (SPI), an unweighted average of KPI scores which is calculated from numerical outcomes of several performance indicators [82]. Popa and Dragomir (2014) presented a case study on the performance assessment of the outsourced ship manning service observed in one local crewing agency, presenting the methods by which the annual performance assessment of the manning service was based on the records of the annual audit made in accordance with the internal audit procedures specified in the Safety Management System implemented by the crewing company, records of visits made by the Fleet Manager (operation manager) from the owner company at every three months and distance evaluation records [88].

Table 8. Classification of KPIs needed for evaluating efficiency of on shore companies with mixed crews and of mixed crews on board vessel

Type of KPI	KPIs used for efficiency evaluation			Educational KPIs	Social KPIs
	Financial Cost KPIs	Time Costs KPIs	Health & Safety KPIs		
<p>KPIs for evaluating efficiency of shipping companies with mixed crews (classification is made based on where the organisational culture is located, either onshore or on board vessel)</p>	<p>1. Number of females employed in administrative positions on shore in the shipping company</p> <p>2. Number of crews (mixed or not)</p> <p>3. Operative costs with mixed crew changing (<i>Note: recruiting female implies a larger pool of available seafarers to form a crew. The bigger pool, the easier and less costly for the company to contact, find and select the best employees in order to improve crew relief periods</i>)</p> <p>4. Operational costs with crew combinations (<i>e.g., operation costs for using specific software or programs for crew combinations based on the personalities of crew members</i>)</p> <p>5. Financial costs in the crew selection process: (<i>e.g., communication costs via phone, internet or post</i>)</p> <p>6. Salary costs during relief</p> <p>7. Number of crews</p> <p>8. Overall salary costs</p> <p>9. Salary costs per number of members in a crew</p> <p>10. Financial costs with training provided for the recruitment officers (<i>training on multicultural communication and on shipping gendering</i>)</p> <p>11. Financial costs with Participatory Gender Audit (<i>costs with the externalization of the audit</i>)</p> <p>12. Financial costs in organizing social activities</p>	<p>13. Time length of contracts (<i>choosing multicultural crews influences the schedule's efficiency; if the company has a gender policy for employing seafaring women, the seafarer pool will increase and contracts might become shorter</i>)</p> <p>14. Number of extra-working days until crew relief (<i>the number of extra-days needed for single gendered crew can be compared to the number of extra days needed for a mixed crew</i>)</p> <p>15. Number of crew changes during one time period</p> <p>16. Time for changing multicultural crews.</p> <p>17. Time for crew selection (<i>e.g., time costs for communication needed for contacting, finding and selecting best crew members for a certain voyage</i>)</p> <p>18. Administrative time needed by the recruiting officer for the process of changing crews</p> <p>19. Crew retention (<i>expresses the loyalty of seafarer to join the same company</i>)</p>	<p>20. Costs with Health & Safety training on shore (<i>is also a financial cost KPI</i>)</p> <p>21. Number of women-friendly policies and facilities on board (<i>e.g., maternity leave, menstrual leave, etc.</i>)</p>	<p>22. Number of in-house training courses to bridge language gaps, cultural barriers, and gender differences among the crew</p> <p>23. Completion rate of course on prevention of harassment, sexual harassment and abuse</p>	<p>24. Number of Participatory Gender Audits in a time period</p> <p>25. Number of positive media, press releases, interviews, news or social media presenting the positive impacts of gender equity manifested in the analyzed shipping company.</p> <p>26. Number of negative media, press release, interviews, news or social media presenting the negative impacts of gender equity manifested in the analyzed shipping company</p> <p>27. Number of social activities on shore with positive impact for teambuilding and crew cohesion</p> <p>28. Number of corporate social responsibility activities</p> <p>29. Number of partnerships for shipping gendering, social and educational campaigns, developed with NGOs, members of the local community and/or maritime education and training institutions</p> <p>30. Operational costs to build ICT infrastructure on board for seafarers (<i>e.g., internet access</i>)</p> <p>31. Company initiatives to identify/specify the contribution of women seafarers and their complementary roles to reinforce the industry workforce</p>

<p>KPIs for evaluating efficiency of mixed crews</p>	<p>1. Seafarer salary costs during voyage</p> <p>2. Crew size (<i>number of seafarer officers and ratings during one voyage on one ship</i>)</p> <p>3. Number of seafaring females employed as crew members on board ship</p> <p>4. Female cadets per vessel (expresses the company's efforts to take on female cadets)</p>	<p>5. Time for standardized operations (<i>How fast a gendered crew compared to a non-gendered crew can complete a usual operation, e.g. operations during ship maneuvering</i>).</p> <p>6. Time for drills (<i>How fast a gendered crew compared to a non-gendered crew can complete a drill</i>)</p> <p>7. Time needed to handle a conflict (<i>time spent between the critical manifestation of a conflict until the conflict is solved, preferable through win-win solutions</i>)</p> <p>8. Response time needed for emergency cases (<i>also health and safety KPIs</i>)</p> <p>9. Social time spent on ship (<i>free time for social activities on board ship</i>)</p>	<p>10. Number of accidents medical problems or injuries happened on board (<i>happened on board ship</i>)</p> <p>11. Number of conflicts on board ship (comparison between the number of conflicts which occurred in mixed crews and the number of conflicts which occurred in single gender crews)</p> <p>12. Number of complaints made by seafarers, regarding working conditions on board ship</p> <p>13. Number of reported bullying incidents</p> <p>14. Number of reported harassment incidents</p> <p>15. Number of suicides or fatalities on board ship</p> <p>16. Number of health care and stress relieving facilities on board ship (e.g., gym, emergency kit, religious facility, karaoke, etc.)</p> <p>17. Diversity of foods in meals for a mixed crew</p>	<p>18. Number of in-house training to bridge language gaps in mixed crews</p> <p>19. Number of in-house training courses to bridge cultural barriers in mixed crews.</p> <p>20. Number of in-house training to bridge gender differences among the mixed crews.</p>	<p>21. Participation rate of female and male seafarers in social activities</p> <p>22. Number of positive communication messages received from crew members, reporting crew satisfaction (e.g., <i>number of positive reports, number of positive informative emails etc.</i>)</p> <p>23. Number of negative communication messages received from crew members reporting crew dissatisfactions (e.g., <i>number of negative reports, number of negative informative emails etc.</i>)</p> <p>24. Number of social activities of teambuilding on board with positive impact for crew cohesion</p>
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BIMCO and DNV are the largest entities on the international shipping market providing KPI analysis and KPI software for the use of shipping companies. The BIMCO Shipping KPI standard was launched for general use in 2010 by InterManager and later became a de facto standard set of key performance indicators, registered under the BIMCO brand, used for ship operations and ship management (Riiland et al) [89]. The Shipping KPI Standard is built up hierarchically with 8 Shipping Performance Indexes (SPIs), 33 KPIs and 64 Performance Indicators (PIs). There is a mathematical relation between SPIs (high level indexes) which are calculated from Key Performance Indicators, and KPIs which are calculated from Performance Indicators (lowest level). On the lowest level, PIs are based on data capture (measurements or counters) directly from a ship or from the shipping management. Data is collected once and re-used within the Shipping KPI Standard in order to reduce the amount of data. On the KPI level, a form of normalisation takes place. The KPI is scaled into a range from 0-100, where 0 indicates unacceptable and 100 is outstanding performance.

This makes it possible to compare ships with different characteristics or amounts of data captured. Finally, on the highest level, the KPIs are combined into Shipping Performance Indexes in order to express performance within specific main areas [97]. Based on the research methodology previously presented, including the validation process through stakeholder interviews, the results of the research consisted of establishing 55 KPIs needed in evaluating efficiency of both mixed crews and companies with mixed crews on board, validated through interviews with maritime stakeholders. The KPIs are presented in Table 3. Our research focuses on gender equality and cultural issues, so compared to other KPI systems in the industry, the KPIs proposed by our team of researchers are missing the environmental KPIs (e.g., energy consumptions or emitted mass of CO₂, SO_x or NO_x) or technical KPIs related only to vessel performance, without considering the implication of seafarers (which express performance of a shipping company but which is outside the GECAMET research field of interest).

The 55 KPIs proposed and validated through literature review and stakeholder interviews within the GECAMET research can be classified by at least three criteria of classification:

1. Classification of proposed KPIs according to the localization of the organizational culture: on sea or on shore, KPIs for evaluating performance of mixed crews on board ship and KPIs for evaluating performance of shipping companies with mixed crews on shore;
2. Classification of the proposed KPIs in five criteria of efficiency analysis: Cost KPIs, Time KPIs, Health & Safety KPIs, Educational KPIs and Social KPIs; and
3. Classification of the proposed KPIs according to the type of organizational shipping policies: HR / Crewing (STCW), Gender Equality, Cultural Awareness, Bullying, Ethical, Occupational Health & Safety, Drug and Alcohol, Corporate Social Responsibility (CSR), Security (SOLAS, ISPS), Safety (ISM Code), Emergency Response Policy, Environmental Protection, Quality of services (ISO 9001) and Confidentiality/Privacy Policy. Such classification can be further delivered in order to establish relevant, feasible and reliable actions needed to assess both crew, company and policy effectiveness.

In Table 3, due to space constraints, only the first two classifications were presented. From Table 3, it can be concluded that KPIs regarding operative financial costs have the following particularities: they need quantitative methods of assessment, they are expressed in financial units as money or currencies, and their optimal value is the minimum. Organizational decisions must be planned and performed towards minimization of such KPI values.

KPIs on operative time constraints also need quantitative methods of assessment. They are expressed in time units (year, months, days, hours, minutes, even seconds). The optimal value is the minimum value in most cases.

The Health & Safety, Educational and Social KPIs are expressed through abstract values without using special units of measurement. Most of them need quantitative assessment but some of them need also qualitative, in-depth methods of assessment. Not all of them meet the optimal values through minimization. There were more Health & Safety KPIs identified on board than the ones identified on shore at the headquarters of the shipping companies. This result appears natural, considering the risk inherent to seafaring activities.

The proposed 55 KPIs can be designated to organizational policies that will imply specific measurable gender equality and cultural awareness actions needed for improving performance in both on shore organization and on board ship.

These proposed KPIs are useful for consolidating or updating and assessment of a responsible gender and multiculturalism policy, integrated with other organizational policies in the companies from the shipping sector. Also, the proposed KPIs can be used in the learning process designated for students of maritime education and training institutions, especially in programs with curricula in shipping management. In shipping companies, specialized training on multiculturalism and shipping gendering, considering the above KPIs, should be organized both for administrative personnel on shore, as well as, minimally, for ship masters and officers.

6. Research Findings on the Effects of External Requirements on Modern Human Resource Management Practices and on Ship Management Policies of Gender Equality

Through GECAMET study were identified effective solutions to enlarge the employment pool of multicultural seafarers with female seafarers. This is possible by establishing strategies of motivation targeting more female to choose a career by sea. In this regard, Maritime Labor Convention (MLC), a normative intergovernmental instrument issued by the International Labor Organization, plays a strategic role in the process of sea careers promotion and attraction of women seafarers. In the last part of GECAMET study are presented the effects of intergovernmental external requirements, namely the Maritime Labor Convention (MLC), on modern human resource management practices. There are identified concrete steps needed for amending MLC with requirements necessary for the work of seafarer women.

The results of the study are useful to establish further effective strategies on recruitment, retention of seafarers and on providing equal career opportunities for women seafarers. Beside a strategy for career attraction and development for women seafarers, updating MLC normative with gender requirements represent also an effective solution for women empowerment.

Compared to onshore human resources management, maritime human resources management has several particularities, occurred mainly by the particular working environment. Seafarers work in long voyages of several months, away from their family, friends and social communities. They work day and night in the same enclosed and definite space, the vessel. In most of the cases, during long voyages the ship cannot provide any internet or phone communication facilities. In such situations ships are perceived as total institutions by the one that live within. This are the cases when seafarers have no mean of communication with the onshore society and they feel isolated, especially if they work in multinational crews with further language and cultural barriers. Such particular conditions of seafarers' societal separation decrease the interest and the motivation for maritime labor and especially the interest and motivation of women. Young generations of people, both male and women, prefer to work on shore and therefore, is manifested a constant increase of the demand for maritime workforce.

However, male-centred workplace culture and stereotypes continues to influence women's choice to join or leave the shipping sector. Though there are encouraging signs that the number of women in maritime professions is increasing, yet shipping remains a male-dominated industry.

6.1. Effects of External Requirements on Improving Ship Management Policies. A Gender and Cultural Perspective on Modern Human Resources Management

A further part of the GECAMET study was focused on ship management companies. Such companies reflect the reinvented way of doing maritime business in the context when owners may come from different industries with no background on shipping. Ship management companies provide the owner with support and solutions on chartering, technical management, maintenance, purchase inspection, supervision during building, crew management, supply and ship lay-up solutions. Also, third party ship management represents a suitable solution for owners holding large fleets. Ship management companies establish and communicate policies and codes of conduct in order to ensure their stakeholders the good manner that their operations are carried out. The study presents a snapshot overview on the shipping market, considering the openness of the ship management decisional bodies on adapting their policies to the world change. The team has proposed ways of improving ship management policies by considering the significance of adopting gender and cultural awareness policies.

Ship management is the service providing a complex management related to the supply of crew (crewing management), technical management (monitoring of the hull, the engines and the equipment of the ship) commercial management of a ship (freight management, chartering and operation) and insurance management[63]. According to the largest international shipping association representing shipowners, BIMCO (Baltic and International Maritime Council), ship management companies are those companies that do not typically own the ships themselves, “but will contract to operate them, manage and maintain them, and provide the detailed technical management to keep them operating efficiently” [64].

This study presents an overview made at a glance on the shipping market, considering the way that ship management companies communicate, through policies, to their stakeholders, the way they plan and organize their business. The research objective is to make an overview on the extent the ship management companies include policies on gender and cultural awareness within their way of doing business. The study contains a basic analysis on 42 ship management companies that communicate their policies through their website.

The number of women in maritime professions is increasing, yet shipping remains a male-dominated industry. Male-centred workplace culture and stereotypes influence women’s choice to join or leave the shipping sector. As the shipping industry continues to grow, sustainability will be dependent on more women entering the maritime professions.

Suitability to a maritime career has more to do with individual’s abilities than with gender or nationality. A very good example is Mrs. Captain Radhika Menon, seafarer woman, Master of the oil tanker Sampurna Swarajya, who received the 2016 the IMO Award for Exceptional Bravery at Sea by the IMO Council. She proved determination and courage in leading the difficult rescue operation of seven fishermen from a sinking fishing boat in the tumultuous seas of Bay of Bengal in June 2015. In order to motivate more females pursue a seafaring career like Capt. Menon and to develop their leadership abilities, a framework of inter-connected effective actions must be delivered by various shipping sector stakeholders: the shipping companies and charterers, ship management companies, authorities and administrations, MET (maritime education and training) institutions, NGOs and community. Among such effective actions stands the implementation and communication of gender and cultural awareness policies online or at the headquarters of the shipping and ship management companies. The role of such policies is essential in motivating females joining the shipping sector and pursuing a seafarer career.

The methodology used to make the overview on policies of ship management companies is based on the analysis of policies communicated by 42 ship management companies through their website. The selection of the 42 companies was randomly conducted by using the first 42 results received by the Google search engine when the key words “ship management policies” were searched within the time framework December 2017 – March 2018. For replicating research, the first 42 results used in our study may change according to the criteria of relevance of the searching engine. We have opted for the use of Google search engine as a research tool for this paper, considering the emblematic Stanford studies of. Brin and Page [66] on the parse role of large-scale hypertextual web search engines (paper cited over 16784 times), the work of E. Holmes (2006) [67] on evaluating results found by using search engines, the paper of K. Lavania et al. (2013) on the methods and techniques that Google uses in searching [68], A. Jain (2013) emphasizing the role and importance of search engine [69] and Gunjan et al. (2012) describing the search engine optimization with Google [70]. The analyzed ship management companies were enlisted in Table 9:

Table 9. Analyzed ship management companies

Nr.crt.	Company name	City, Country
1	Bernhard Schulte Shipmanagement	Hamburg, Germany
2	Matrix Ship Management Ltd.	Limassol, Cyprus
3	Zodiac Maritime	Lysaker, Norway
4	Primanav Ship Management Pvt Ltd.	New Delhi, India

5	Enzian Ship Management	Zürich, Switzerland
6	Jade Shipmanagement Limited	Kwai Chung, Hong Kong
7	COLUMBIA Ship Management Ltd.	Limassol, Cyprus
8	AW Ship Management	London, UK
9	Marlow Navigation	Limassol, Cyprus
10	Interorient Ship Management	Limassol, Cyprus
11	Diamond Ship Management Pte. Ltd.	Singapore
12	Atlas maritime	Athens, Greece
13	Knutsen OAS Shipping	Haugesund, Norway
14	Mastermind Ship Management Ltd	Cyprus
15	Finaval S.P.A.	Roma RM, Italy
16	Blue Line Ship Management	Athens, Greece
17	FOSCON Shipping & Marine Transport Inc.	Manila, Philippines
18	AB Crewing	Constanta, Romania
19	Euronav	Antwerp, Belgium
20	Kontor 17 Ship Management	Hamburg, Germany
21	Optimum Marine Management	Athens, Greece
22	Histria Ship Management	Constanta, Romania
23	Zodiac Maritime	London, UK
24	Expedo Ship Management	Monaco
25	TMS Cardiff Gas	Greece
26	The Great Eastern Shipping Co. Ltd.	Mumbai, India
27	Aegean Ship Management	Piraeus, Greece
28	Crystal Pool Ship Management	Genoa, Italy
29	XT Shipping Group	Israel
30	Capital Shipping	Constanta, Romania
31	Northern Marine	Scotland, UK
32	Thome Group Ship Management	Singapore
33	Vera Shipping	Istanbul, Turkey
34	North Star Ship Management	Maharashtra, Mumbai, India
35	LAUGFS Maritime	Sri lanka
36	Professional Ship Management	Mumbai, India
37	Anangel Maritime	Kallithea, Greece
38	M.T.M. Ship Management	Singapore
39	Empire Navigation	Elliniko, Greece
40	MSI Ship Management	Singapore
41	Hellenic Star Shipping	Athens, Greece
42	Glance One Ship Management	Mumbai, India

Most of the ship management companies analyzed are multinational with offices in diverse major cities from countries with background in shipping and/or seafaring.

For establishing the framework input we have considered relevant literature review on ship management published by several researchers in dedicated maritime journals (e.g. Maritime Policy & Management, Marine Policy etc.), repositories and databases (e.g. HAL).

Sletmo considered that ship management was “shipping’s fourth wave” standing at the base of “a profound reorganization not only of shipping markets but of shipping itself” [71]. P. M. Panayides and Gray discussed on building and maintaining long-term client relationships by improving the quality of service and establishing strategies [72] and further, Panayides and Cullinane showed that not the price alone is most important for selection of a ship manager, but other dimensions (e.g. technical ability, reputation, competency, responsiveness, trustworthiness [73]. Also, Panayides analyzed empirically

the competitive strategies and organizational performance in ship management, concluding, among other things, that differentiation is one of the strategies that influence performance of a ship management company [74]. K. Mitroussi made also several relevant empirical studies on comparing Greek and UK ship management sector [75] and emphasized the role of organisational characteristics of ship owning firms in the use of third party ship management [76].

Also, is relevant the work of P.Cariou and F. C. Wolff who used econometric analysis on data coming from 4049 owners having 39 925 vessels to investigate vessel management outsourcing patterns and to study the factors explaining differences in outsourcing rates [77] and the model proposed by Asuquo et al. in selection of ship management services [78].

Our main contribution in updating the cited works is on considering the competitive advantage that the implementation of specific policies might bring to ship management companies in the selection process.

As we have previously presented in the Methodology, in our GECAMET study we have selected randomly the websites of 42 ship management companies across the globe. The research objective was to identify the extent of the online communication of gender equality and cultural awareness policies implemented by the ship management companies from the target group. The analyzed ship management companies provide the following services: Technical management of the vessel with regards to crewing and onboard operations, Internal / External Audit and Inspection; Coordination of vetting inspections; Commercial Management; Full vessel management; Procurement; Hotel services Management; Crew Management; Newbuilding Supervision; Training; Consultancy; Safety and Security Management. Dry-dock repairs services, Newbuildings & Conversion; Management of vessel's requirements in consultation with regulatory agencies; Safety and Security training as required; Insurance & Claims Handling; Corporate & Financial Management. The most concluding result is that there are no general rules or regulations in advising ship management companies to implement policies. The policies implemented by ship management companies can be classified in 4 non-exhaustive major categories:

- social;
- safety & security;
- environmental;
- quality.

Such categories are non-exhaustive and comprise in total 13 different policies. Two major categories of policies are divided in specific policies.

We have observed that the social category of policies is mostly the first mentioned on the websites and has the most specific policies: HR / Crewing (STCW), Gender Equality, Cultural Awareness, Bullying, Ethical policy, Occupational Health, Drug and Alcohol, Corporate Social Responsibility (CSR), suggesting the focus on the importance of the human resource (the seafarer and the crew). The second major category of policies, Safety and Security, was divided in the following policies: Security (SOLAS, ISPS), Safety (ISM Code) and Emergency Response Policy, while the Environmental protection (MARPOL) and Quality of service (ISO 9001) stands alone. Other policies that can be added in a further in depth study might be the confidentiality policy.

The results obtained so far shows that no company had implemented all the 13 policies mentioned above.

Unfortunately, only one company out of 42, Bernhard Schulte Shipmanagement (BSM) headquartered in Hamburg, Germany, had implemented gender equality and cultural awareness policies. This company's features are different from the others because BSM recognises public on their website the problems that harassment can cause in the workplace and considers harassment of any employee for any reason to be unacceptable. All employees have a personal responsibility for the practical application of equal opportunities in their everyday dealings and working relationships not only to their colleagues, but also to clients, suppliers and other related parties. Managers have a responsibility to ensure that no form of harassment occurs in the workplace; this includes ensuring that a culture of unacceptable behaviour is not allowed to develop. The best practice learned by Bernhard Schulte

Shipmanagement is the fact that the company follows a clearly defined set of corporate policies designed to ensure that all Group companies, employees and agents acting on the Group's behalf maintain the highest possible level of business, social and environmental integrity in all aspects of their business activities. The company demands and maintains high ethical standards in carrying out its business activities. It stands out the company believes service excellence to be the best way of enhancing its reputation. Whilst fair comparison between the company's strengths and competitors' weaknesses may be made, the company will not engage in damaging competitors' reputations either directly or by implication, misrepresentation or innuendo. A focus is placed on maritime companies showing commitment to gender equality policies. The concept of gendering shipping defines this company because is communicating actively the voluntary implementation of gender policies in their organizational culture.

In the web-based investigation of the 42 companies, in some cases, more policies were combined in one (e.g. gender equality, diversity and bullying (victimisation) were combined in one policy.

Some policies are inter-connected. For example, safety policy contains zero spills requirements of the environmental policy, stating that "the objective (...) is to have zero spills into the environment, the aim is to eliminate the possibility of pollution at source on vessels managed." In general, Human Resource and Occupational Health were combined in one policy, Safety and Quality were combined in one procedure, or Occupational Health and Safety were combined in one procedure abbreviated OHS.

In the cases where policies were not easily visible communicated on the website, there was indicated a contact form for the HSQE & Security Department. In general, a succinct presentation of the policies is communicated on the website. One company that provides the service of drug and alcohol policy implementation and monitoring for clients, did not communicated to the public the implementation of such policy within the company

In another case, the Safety Management System Commitment was a general mix between safety policy, environment policy, security, ethics and quality.

Few companies had the initiative to include ethical policies (including / next to anti-bribery policy) and policies of corporate social responsibility, describing few actions developed for local communities. The objective of this study was to investigate to what extent the gender and cultural awareness policies are implemented and communicated online on the websites of the ship management companies. Though the target group of the ship management companies used in our study presented in this paper is rather small, still the result has a certain level of significance. All the analyzed companies communicate policies regarding quality, human resources and environment, but only one out of ten communicated also a gender equality and cultural awareness policy.

Most analyzed companies implemented policies based or inspired by the international regulations and requirements, e.g.: STCW, SOLAS, ISM Code and MARPOL. This observation suggest that external requirements for improving ship management policies are mostly effective when come from regulatory bodies (IMO, ILO, ITF) rather than coming from civil society, MET or even from the business environment.

Few companies refer to implementation of ISO 9001 standard of quality management. And fewer actions are delivered voluntary to implement gender and cultural awareness policies in order to motivate females join a seafaring career, though such actions would be needed in the context of seafarers shortage.

Considering the competition existing on the market, the economic cycles with increases, booms and crisis periods, ship management companies will continue to search for differentiation possibilities and market advantages in order to be selected by ship owners and customers. If we correlate the result obtained and presented in this paper, with the indicated literature review, we estimate that in the near future will increase the number of ship management companies that will establish, implement and communicate gender equality policies for equal access opportunities for both female and male, as well as cultural awareness policies needed to eliminate discrimination and avoid cultural conflicts on board ship.

The study continues in expanding the research database for obtaining more accurate results. Also, a direction of research might be to identify common principles and patterns acknowledged in the specific policies, in order to propose to the interested organizations (either ship management companies or shipowners in the process of selection) models of unified, complete and updated policy.

6.2. Steps and Milestones in Updating Maritime Labour Convention (MLC) with Requirements on Gender Policy

In the last part of the Report is presented one analysis on the effects of intergovernmental external requirements on modern human resource management practices coming.

External requirements for shipping companies and their management of maritime human resources come from multiple sides:

- From the United Nations, through social campaigns, conferences or scholarships
- From the International Labor Organization, through amendments to labor conventions
- From the International Maritime Organization, by amendments to maritime convention
- Governmental actions, through national regulations, financial support etc.)
- NGOs actions, e.g. through campaigns of awareness and women seafarer empowerment) IMO through various programs of empowering seafarer women and from ILO through the amendments to Maritime Labor Convention;
- Diverse stakeholders: partners, investors, clients, employees, university, community etc.

The current study is focusing on the external ILO requirements on maritime labor designated for ship owners.

Methods used for this study were the following: one focus group meeting on the topic with 11 international researchers from Maritime Education and Training (MET) institutions; visits, one email interview of an ILO legal specialist and one visit with 5 daily observations during the most recent Special Tripartite Committee working meeting at ILO on amending MLC.

One multicultural and multinational focus group working meeting was held after the opening of the GECAMET project, on 12 May 2018 at Constanta Maritime University. The topic of the focus group was connected to several deliverables on the GECAMET study, including the topic external effects on modern management of maritime human resources needed to assure gender equality in the maritime sector, as presented next. A number of 11 international researchers have participated at the focus group meeting, having various interconnected areas of expertise related to seafaring, management of human resources, maritime law, gender, multiculturalism, maritime education and training, leadership. The researchers were from the following countries: Romania, Canada, Ghana, Spain, Philippines (2 researchers from different institutions of maritime education), South Korea, UK, Norway (online participation), Vietnam (online participation) and Netherlands (online participation).

The focus group data were analyzed after they were transcribed by the Research Coordinator from the notes taken during the session and from the video recording. Considering the qualitative dimension of the focus group, no software was used. The conclusion of the focus group was the fact that in every country there are local factors and different cultures that influence promotion of seafarers' careers and the participation of female seafarers to the maritime industry. National employment practices are correlated with the number of females that are working in the shipping industries. Gender policies are linked to the socio-economic status of the countries. There are country correlations between employment practice of female seafarers, social development and the number of females. There were suggested several directions of the study on external requirements, connected to other topics of the complex GECAMET research.

In order to attract newcomers to the seafaring careers and for taking care of the safety of those seafarers that are already employed in the shipping business, the International Labor Organization (headquartered in Geneva, Switzerland) has established international normative instruments ensuring

work by sea in proper conditions. Maritime Labor Convention (MLC) is such intergovernmental instruments, taking care of decent and safe labor conditions needed by seafarer workers worldwide. Intergovernmental instruments are essential to provide homogenous normal conditions of work for the particular sector of water transport, for all countries that are party to the agreement.

MLC is a coherent instrument embodying standards of existing international maritime labor Conventions and Recommendations, as well as the fundamental rights and principles found in other international labor conventions related to abolition of forced labor, freedom of association, the right to organize and collective bargaining, equal remuneration, discrimination (employment and occupation), minimum work age and child labor. The Regulations and the MLC Code are organized into general areas relate to: minimum requirements for seafarers to work on a ship; Conditions of employment; Accommodation, recreational facilities, food and catering; Health protection, medical care, welfare and social security protection; Compliance and enforcement.

Following is cited a part of the email interview results made with an ILO legal specialist on the topic updating MLC with gender requirements needed by women seafarers. To the question “How can be amended the Maritime Labor Convention with gender requirements needed by seafarer women?” has been received the following reply:

“An amendment to the Convention was approved by the International Labor Conference on June 2016 on harassment and bullying on board ship. The amendment is aimed at protecting both men and women but certainly, once it enters into force in January 2019, it will represent an important step forward in the protection of women.

Please note that amendments to the Code of the MLC, 2006 must follow the procedure established in its Article XV. No amendment on gender issues has been presented and therefore the STC could not adopt any such amendment at its up-coming session.

An amendment to the Code may be *proposed to the Director-General of the International Labour Office* by the government of any Member of the Organization or by the group of Shipowner representatives or *the group of Seafarer representatives* who have been appointed to the Committee referred to in Article XIII. An amendment proposed by a government must have been proposed by, or be supported by, at least five governments of Members that have ratified the Convention or by the group of Shipowner or Seafarer representatives referred to in this paragraph.”

Therefore, in order to present an amendment on gender issues to the Special Tripartite Committee dealing with MLC amendments, a first step is to raise discussions on this topic with delegates of the different groups: seafarers, shipowners and Government. Such discussion can be made during the STC meetings, or individually. The input and contribution from women in seafaring groups and networks is needed to develop a strategy of lobby and discussion.

Maritime Labor Convention is in a constant process of updating in accordance with the new trends and situations that occurs in the maritime sector. The process of update is made, mostly, through amendments discussed and agreed within Tripartite Special Technical Meetings by the Member States parties to the agreement.

The methodology of MLC amendment is described in the Maritime Labor Convention, Article XV paragraph 2-13 related to amending MLC, available in [109].

A third research method used in the last part of the study were the observations, discussions and interviews made by the author during the participation of the author to the third meeting of the Special Tripartite Committee established by the Governing Body in accordance with Article XIII of the Maritime Labor Convention, 2006 which took place at the ILO in Geneva between 23 to 27 April 2018.

The observations were done during 5 days of the STC event, where delegates of the different groups (seafarers, shipowners and Government) discussed and voted on different subjects related to MLC

amendments. Discussions and interviews were made with 46 delegates from each group, as well as with ILO employees.

Based on the results of the discussions at the STC event, the researcher concluded that the MLC should be updated with the following gender requirements, in order to provide fair and equal chances in the process of sea careers promotion and attraction of women seafarers:

- a. Gender customized work protection equipment on board vessel for seafarer women;
- b. Gendered separate spaces for toilets and showers on board vessel;
- c. Sanitary bins on board vessel for disposal of feminine hygiene products;
- d. Feminine hygiene products should be sold in bonded stores on board ship and in ports;
- e. Private and hygienic disposal method for feminine sanitary products on board vessel;
- f. Paid maternal or paternal leave, specifying exactly whether the leave should be paid by governments, by employers or by both entities.
- g. Company policies on Gender discrimination should be implemented by employers.

From the discussions with ILO employees, it was concluded that in the 2018-2019 work biennium, the ILO, following decisions taken by the Governing Body which themselves followed recommendations of the Sectoral Policies Department advisory bodies (consisting of representatives of Governments, Employer and Workers and, in the case of shipping, the ICS and ITF) will convene a Sectoral Meeting on the recruitment and retention of seafarers and the promotion of opportunities for women seafarers. This suggests further actions of women seafarers awareness and empowerment are expected. The observations also concluded that lobby and diplomatic strategies are needed for developing discussions between ILO advisory bodies, governments, employer and workers, on the topic 'gender in shipping', which might be a sensitive topic or which can be considered taboo for delegates of some countries.

7. Conclusions

One of the conclusions of GECAMET study is the fact that, as the shipping industry continues to grow, sustainability will be dependent on more women entering the maritime professions. Male-centred workplace culture and stereotypes influences women's choice to join or leave the shipping sector. Though there are encouraging signs that the number of women in maritime professions is increasing, yet shipping remains a male-dominated industry. Considering the lack of accuracy on the available statistical data regarding the number of seafarer women, in [14] there is established a framework for gathering updated further needed statistical data, according to MLC Guideline B1.4 point 1 paragraph e) on recruitment and placement, related to Standard A1.4 paragraph 1 on public seafarer recruitment and placement service operated by a Member State, in connection with Regulation 1.4 - Recruitment and placement: "competent authorities from member states should consider maintaining an arrangement for the collection and analysis of all relevant information on the maritime labour market, including the current and prospective supply of seafarers that work as crew classified by age, sex, rank and qualifications, and the industry's requirements, the collection of data on age or sex being admissible only for statistical purposes or if used in the framework of a programme to prevent discrimination based on age or sex".

The problem of gender equality in the maritime field represents a challenge for obtaining human progress, economic development, respect, multiculturalism awareness and recognition of human rights. In a specific area like the maritime one, gender issues are often considered taboo subjects.

The overall research objectives in GECAMET were to improve the understanding of human factors in the maritime sector, considering gender equality and cultural awareness issues; to evaluate the economic efficiency of shipping companies with mixed crews; to evaluate the effects of external requirements on ship management policies regarding modern human resource management, gender equality and cultural awareness and to evaluate holistically the role of maritime education and

training in the complex relation human factors- shipping business environment – ship management policies.

Maritime companies showing commitment to gender equality in shipping are simply benchmarked. Gendering shipping is a new emerging trend of benchmark in the maritime sector, based on obvious good examples of responsible social attitude on solving the gender issues within the industry. The concept of gendering shipping defines companies who communicate the voluntary implementation of gender policies in their organizational culture actively. The application of gender policies occurs before regulations on the topic might shift the voluntary approach in one more or less recommended or mandatory approach. Gendering shipping represents a supportive response of the maritime industry, long expected, to the empowering necessities of female seafarers' communities from the world shipping sector.

In the GECAMET research team have jointly contributed ten researchers from maritime education and training institutions of Australia, Canada, Ghana, Norway, Philippines, Romania, South Korea, Spain, and Vietnam. They have proposed concrete measures of good practice for motivating women to join the shipping sector. The research team has used their diverse and complementary experience in assessment of shipping companies, professional expertise regarding multicultural (mixed) business work environment in both onshore and offshore business, experience in intercultural coaching, training and consultancy, organizational anthropology, a study of the cultural differences and scientific expertise on performance and multicultural vessels.

The overall research objectives in GECAMET were to improve the understanding of human factors in the maritime sector considering gender equality and cultural awareness issues; to evaluate the economic efficiency of shipping companies with mixed crews; to assess the effects of external requirements on ship management policies regarding modern human resource management, gender equality and cultural awareness and to assess holistically the role of maritime education and training in the complex relation human factors - shipping business environment – ship management policies.

GECAMET research made so far indicate large discrepancies in the situation of female seafarer around the world. In some countries, access of women to maritime education is still mostly restricted, but is important to mention there were made some efforts and is expectation to improve this situation in the nearest time (e.g. Saudi Arabia and partly Vietnam). In other countries, access to maritime education is partly permitted, but sponsorship, cadetship, training programs on board ship and employment are mostly denied to females, probably due to stereotyping of the shipping companies (e.g. China, Taiwan, Korea and Japan). And in most other countries, female can successfully pursue both seafaring education and careers (e.g. Australia, India, Philippines, Ghana, Canada, US and all the European countries having MET institutions).

Good cases of employment women in seafaring are benchmarking shipping. This is either through the involvement of deserving shipping companies (e.g. Maersk), either through solid partnerships between MET institutions and private shipping companies (e.g. training partnership program between the Royal Caribbean Cruise and the Regional Maritime University from Ghana) or through examples of good governmental initiative. In such context is worth mentioning the case of Iceland, France and Germany that have recently proposed in 2018 and implemented some initiatives of encouraging gender equality on a 50% ratio in any employment in all sectors. Also a very good benchmark example of international institutional commitment to gender equality is the fact that all institutions and agencies of the United Nations make annual reports available for public with their employment gender ratio and their commitment to reach a 50% gender equality ratio in employment until 2030.

There has been made tremendous efforts to gain awareness on the key role of female seafarers in a sector traditionally ruled by gender bias and gender stereotypes. Positive results became more visible with each inspiring female seafarer leader encouraged by their employing companies to become role models for the next and actual generations of women seafarers. In such context GECAMET team of researchers have proposed the term “gendering shipping” to reflect the new emerging trend of

benchmarking in the transports sector. Gendering shipping is the contemporary trend of benchmarking maritime companies that assign a social responsible attitude in building a gender equal organizational culture both on board ships and inside the shipping company on shore. The trend represents a supportive response of the seafaring industry, long expected, to the empowering necessities of female seafarers' communities from the world shipping sector.

In order to face the competitive environment in the maritime industry, shipping companies should update their HR policies by making them gender-friendly and by ensuring policies on gender equality and cultural awareness on board their ships and at the on-shore headquarters of the company. The appropriateness of a gender policy can be measured through the metrics of Key Performance Indicators (KPIs), a tool used in performance measurement and holistic performance evaluation for important strategic decisions. In WP 2. Research study on Economic Efficiency of Shipping Companies with Mixed Crew, during our research activities we have managed to find 55 KPIs evaluating performance of mixed crews and the performance of companies with mixed crews.

According to the GECAMET study, the main reason of shipping companies for not employing seafarer women is that female seafarers can get involved in sexual affairs with crew members and this affects the climate on board. A future research should be made in order to analyse if the above conclusion is a gender stereotype or a fact.

In the last part of the GECAMET study was presented an analysis on the effects of intergovernmental external requirements, namely the Maritime Labor Convention (MLC), on modern human resource management practices. There were identified concrete steps needed for amending MLC with requirements necessary for seafarer women work, awareness and empowerment. Another original approach is the research presented in this paper, on identifying concrete and effective steps and solutions for the possible updating of Maritime Labour Convention with gender requirements needed urgently by women seafarers. So far, related to gender, the Convention contains only limited paragraphs dedicated for establishing minimum working conditions for female seafarers. The initiative of updating MLC with requirements of gender policies, if (when) considered, will really make a difference in the shipping sector and will improve very much the condition of seafarer women. There is no research in this domain so far.

The results presented in this Report are useful for establishing effective intergovernmental strategies on recruitment and retention of seafarers and on the promotion of opportunities for women seafarers.

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