MARITIME HUMAN RESOURCES COMPETITIVENESS THROUGH PROPER IMPLEMENTATION OF SAFETY MANAGEMENT

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Maritime competitive companies are the ones that provide qualitative transport services at a lower price than competitors. High professional seafarers are the key success for competitiveness in maritime field. Professional and competitive seafarers are not the ones that accept a low wage but the ones that are well trained and responsible with their work and with the environment. In order to be competitive and responsible, maritime companies and seafarers must acknowledge and implement a management of safety at the board of the ship. Commitment of leadership, continuous communication, crew's involvement and responsible attitudes towards safety are the determinants of a proper implementation of safety management – key criteria in acquiring and maintaining competitiveness in the business.

1. Competitiveness in the maritime business

Competitiveness in maritime business is a relative term that can be measured in terms of price, unit production cost or labor productivity relative to competitors. According to Organization for Economic Cooperation and Development (OECD, 2002) competitiveness of a nation can be defined as "the capacity of a state, which is in an international competition, to generate a high level of incomes and placement for the labor force on a sustainable basis". The concept of competitiveness is at the core of the success of nations and companies (Toma, Marinescu, Ianole, 2008). A competitive maritime company is the one that clearly states a mission reflecting a serious commitment to international transport activities; has the ability to identify and adjust rapidly to clients needs and opportunities and has the ability to provide high-quality, competitive navigation services. The following elements are determinants for a firm's international competitiveness: specific assets and core competences that can be exploited to their competitive advantage, reputation, continous innovation in ship building, ship design or ship services, shown in particular in passenger cruises, a firm's architecture which describes the culture of the company. The firm's architecture can be observed in the company's recruitment and promotion practices, the rate of staff turnover – a major issue for a maritime company, the number of client complaints, the company's relationships with stakeholders, suppliers and other external organizations. (Radu, Catanet, 2007).

In the maritime business, competitive firms are the ones that provide qualitative transport services at a lower price than competitors. We consider that qualitative transport services are the ones made with qualitative ships ran by professional seafarers, paid with a lower wage than other maritime companies. Some maritime companies, in general the small ones new to the market, sign employment contracts with less-than-good maritime seafarers, that accept to go on long voyages of four, six, or more than six months for less money. Maritime companies with long tradition in this business avoid such hiring, even if they are in condition of personnel shortage.

The growth and diversification of maritime activities has lead to an increase and an evolution of threats; this new situation requires the consideration of individual threats (navigation, accidents, terrorism, immigration, illicit traffic and pollution) and environmental threats (natural resources and disasters). In such environment, competitive seafarers are the ones who are well trained, accept a low level of risk and are responsible with their work and with the marine environment. In Romania, like in other countries, competitive maritime companies are the ones that hire seafarers after they passed a technical computer exam in English and a very well structured interview. Competitiveness is acquired when seafarers act as professionals in every action they make at the board of the ship or o land. Employment conditions for seafarers should be at least comparable with those found in other industries – particularly in view of the obvious impact that the quality of the shipping industry's workforce has on safety at sea and protection of the marine environment. Applying a professional way of thinking, not only in their job, but in life in general, brings satisfaction. A professional learns every aspect of the job while an amateur skips the learning process whenever possible. A professional seafarer carefully discovers what is needed and wanted while an amateur quickly assumes what others need and want. A professional seafarer looks, speaks and dresses like a professional while an amateur has a lack of attitude and is negligent in appearance and speech. A professional seafarer keeps his or her work area clean and orderly while an amateur has a messy, confused or dirty work area. A professional seafarer is focused and clear-headed while an amateur is confused and distracted. A professional seafarer analyze his or her mistakes, learn from them and share their earn knowledge with others while an amateur ignores or hides mistakes. A professional seafarer jumps into difficult assignments while an amateur tries to get out

of difficult work. A professional completes tasks and job as soon as possible, while an amateur complains about received tasks and looks for excuses for unfinished work. A professional seafarer with the attitude of a leader remains level-headed and optimistic when facing problems and try to solve other people's upsets and problems while an amateur gets upset and assumes the worst, avoiding others' problems. A professional seafarer uses higher emotional tones like enthusiasm, cheerfulness, interest, contentment and avoids anger, hostility, resentment or fear. A professional persists until the objective is achieved and don't give up at the first opportunity, producing even more than expected. This are the reasons for which professionals earns high pay while non-professionals earns low pay and feels it's unfair.

Competitiveness means professionalism and high productivity. At the level of maritime company, it means cost efficiency and cost effectiveness. But competitive companies don't cut costs with training systems for seafarers and invest in sending employees to international conferences and seminars on safety issues and safety management.

Safety is the state of being "safe" and protected against all types or consequences of failure, damage, error, accidents, harm or any other event which could be considered non-desirable. International Maritime Organisation (IMO) – the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships – places considerations of the human element at the centre of its work. Issues of concern to seafarers such as stress, fatigue, workloads, training standards, safety, security and environmental protection are affecting the competitiveness of a maritime company. Ship owners admit the benefits from employing seafarers who are not only properly qualified but who also display the professional standards and technical competence needed to manage today's ships safely and efficiently. That is why seafarers can obtain seafaring certificates only after they demonstrate their knowledge on IMO's International Conventions on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), *Safety of Life at Sea* (SOLAS) or International Safety Management (ISM) Code.

The STCW Convention, which underwent a complete revision in 1995 and has been updated with amendments since then, focuses on the demonstration of competence, not just the acquisition of knowledge. The implications of this have been significant for improving safety and environmental protection record for international shipping. Some of this improvement can be attributed to improved technology but, statistically, 80 per cent of accidents are caused by human error or lack of competence.

International Safety Management (ISM) Code is a mandatory code that deals with management and, in particular, the responsibility of management to play a full and active part in building a safety culture onboard ship and within the company, to the benefit of all stakeholders. The ISM Code entered into force on July 1998 for passenger ships, including passenger high-speed crafts, oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed crafts of 500 gross tonnage and above. According to this code, if something goes wrong with the ship at sea, the Master of the ship is not solely responsible but the issue is taken as far as the boardroom.

Competitiveness in shipping relies heavily on the initiatives, co-operation and constant vigilance of seafarers to help prevent breaches of maritime safety and security. Maritime safety and security sectors have become ultra-sensitive faced with the growing need for the protection of goods and persons against multiple threats coming from the sea. Every year, many seafarers are either injured or lose their lives in maritime accidents caused by poor designed or equipped ships or operated and manned to poor standards (Cockroft, 2005). In order to be competitive, efficient and for safety reasons, seafarers need special time to relax and recover between voyages before they take their ships out to sea.

2. Implementation of safety management in maritime companies

Maritime safety and security sectors have become ultra-sensitive faced with the growing need for the protection of goods and persons against multiple threats coming from the sea. The growth and diversification of maritime activities has lead to an increase and an evolution of threats; this new situation requires the consideration of individual threats (navigation, accidents, terrorism, immigration, illicit traffic and pollution) and environmental threats (natural resources and disasters).

The objectives of safety management code are to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment, in particular, to the marine environment, and to property. By enabling safety management objectives, seafarers should provide safe practices in ship operation and a safe working environment. They establish safeguards against all identified risks; and continuously improve safety management skills of ashore and aboard ships, including preparing for emergencies related both to safety and environmental protection. The owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the shipowner and who, on assuming such responsibility, has agreed to take over all duties and responsibility imposed by IMO's ISM Code, should develop, implement and maintain a safety management system which includes safety and environmental protection policy; instructions and procedures to ensure safe operation of ships and protection of the environment; defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel; procedures for reporting accidents and non-conformities with the provisions of ISM Code; procedures to prepare for and respond to emergency situations and procedures for internal audits and management reviews.

A competitive maritime company should establish a safety and environmental protection policy and should ensure that the policy is implemented and maintained at all levels of the organization both ship based as well as shore based. The maritime company should define and document the responsibility, authority and interrelation of all personnel who manage, perform and verify work relating to and affecting safety and pollution prevention.

To ensure the safe operation of each ship and to provide a link between the company and those on board, every maritime company should designate a least a person ashore having direct access to the highest level of management. The responsibility and authority of the designated person or persons should include monitoring the safety and pollution prevention aspects of the operation of each ship and to ensure that adequate resources and shore based support are applied, as required.

From the perspective of resources and personnel, the maritime company should ensure that the master is properly qualified for command. The maritime company should clearly define the Master's responsibility with regard to implementing the safety and environmental protection policy of the company, motivating the crew in the observation of the policy, issuing appropriate orders and instructions in a clear and simple manner, verifying that specified requirements are observed and reviewing the safety management system and reporting its deficiencies to the shore based management. The Master or Captain of a merchant vessel is a licensed mariner in ultimate in command of the vessel. [1] (Aragon, Messer, Tuuli, 2001). A Ship's Captain, also called Shipmaster, is responsible for its safe and efficient operation, including cargo operations, navigation, crew management and ensuring that the vessel complies with local and international laws, as well as company and flag state policies and therefore, a candidate for an unlimited master's licenses requires several years of seagoing experience as third mate, second mate, and chief mate. A ship's Master commands and manages all ship's personnel, and is in charge of the ship's accounting, payrolls and inventories.

The Master is responsible for compliance with immigration and customs regulations, maintaining the ship's certificates and documentation, compliance with the vessel's security plan, as mandated by the International Maritime Organization. He is also responsible for responding to and reporting in case of accidents and incidents, and in case of injuries and illness among the ship's crew and passengers. A Ship's Captain must have a Master Mariner's license, issued by the ship's flag state. A Shipmaster at sea, during the navigation, represent some official authorities like the public notary, police, and has the official power to use, in some particular case, like mutiny and pirates assault, the dead force addressed to defence the interests of: flag state, owner, environment, cargo owners, crew, passengers and the safe navigation activities and laws. No other official autorities on board, during the navigation, are in power to override the Captain from his important office. All persons aboard, crew and passengers, conforming the nautical and navigation laws, must remain under command and under the authority of the Master.

A competitive maritime company should ensure that each ship is manned with qualified, certificated and medically fit seafarers in accordance with national and international requirements. New personnel and personnel transferred to new assignments related to safety and protection of the environment must be given proper familiarization with their duties. The company should ensure that all personnel involved in the company's safety management system have an adequate understanding of relevant rules, regulations, codes and guidelines.

The company should establish and maintain procedures for identifying any training which may be required in support of the safety management system and ensure that such training is provided for all personnel concerned. Also, procedures by which the ship's personnel receive relevant information on the safety management system in a working language or languages understood by them should be assured.

The company should establish procedures to identify describe and respond to potential emergency shipboard situations. Programs for drills and exercises to prepare for emergency actions should be established. The safety management system should include procedures ensuring that non-conformities, accidents and hazardous situations are reported to the Company, investigated and analyzed with the objective of improving safety and pollution prevention. Procedures for the implementation of corrective action should be assured. The company should establish procedures to ensure that the ship is maintained in conformity with the provisions of the relevant rules and regulations, that inspections are held at appropriate intervals, any non-conformity is reported with its possible cause, if known, appropriate corrective action is taken and records of these activities are maintained. The company should establish and maintain procedures to control all documents and data which are relevant to the safety management system. Documentation should be kept in a form that the company considers most effective and each ship should carry on board all documentation relevant to that ship. The company should carry out internal safety audits to verify whether safety and pollution prevention activities comply with the safety management system and the audits and possible corrective actions should be carried out in accordance with documented procedures. The results of the audits and reviews should be brought to the attention of all personnel having responsibility in the area involved. The management personnel responsible for the area involved should take timely corrective action on deficiencies found.

3. Aspects of competitiveness analysis and implementation of safety management

A competitive analysis establishes the skills necessary to succeed in maritime business and define a company distinct competitive advantage. Therefore, it's essential for new businesses in maritime sector to complete a

competitive analysis during the business planning stage, but competitive intelligence can also be useful for marketing, pricing, managing and other strategic planning. Before a company can know it's competitive edge, should know its competitor: where is the competitor located, what are the competitor's strengths and weaknesses, how can the transport services be compared in terms of quality, appearance and any other criteria.

An analysis of competitive benchmarking can be used for comparing the maritime organization's operations against those of the competitor's. In making specific comparisons within maritime industry, organization gains information about common marketing practices, available seafarers and stakeholders. In order to benefit from this research, a company should take as many weaknesses of the competitors as possible and turn them into potential strengths for the business.

An analysis of competitiveness and safety management implementation at the board of the ship presents a number of disadvantages related to excessive retraining costs, management time consumption, increase paperwork and formalities, demands unrealistic employee commitment levels, and emphasizes process over results. Failure in implementation may be caused by lack of understanding and coping with the organizational culture, inadequate training, lack of management leadership, financial commitments, and cooperation (Pun, Yam, Lewis, 2003). From the experiences of the safety management system certified companies in Hong Kong and Singapore (Yeung, 1997), the most difficult problems associated with the registration are: *resistance to change,* l*ack of human resources, insufficient knowledge of procedures or lack of inter-departmental communication.* Many shore-based staff and crews are resistant to change when introducing new procedures and instructions in accordance with the ISM Code. Preparing safety management manuals and writing procedures require human effort and time that are beyond the capability of current staff. The requirements of ISM Code are new to many managers, port and ship captains, and engineering superintendents and conflicts always occur among departments, especially between the operation department and the technical department. L*evel of education* is another weakness accepted by a large number of companies that employ lower educated crews from developing countries. This reduces operating costs but also creates a lot of problems with competitiveness standards from the service quality point of view. Poor communications and *frequent staff turnover is another issue that many maritime companies have to face.* Most crews are recruited on a contract basis (normally in four to 12 months). This adds to the difficulties of introducing change or any new policies and practices on board. Many ship operating companies rush to complete safety management system registration in nine to 12 months time and this imposes enormous pressure on the management and staff involved to achieve it.

Conclusions

In order to acquire competitiveness by implementing the safety management system in maritime transport business, the management of the maritime company should state a clear vision and mission so that the crew members can understand the expectations of management. There should be established a safety management panel to monitor the implementation of the system and a least one person should be designated ashore to provide communication between the company and crew regarding safety operations and any problems that may appear. Nevertheless, the company should finance leadership and safety management training programs and seminars.

The implementation of safety management in maritime transport companies must be consistently analyzed and reviewed. Competitive maritime companies with tradition are the ones hiring seafarers after passing both a high level exam and a very well structured interview. In order to be competitive and responsible, maritime companies and seafarers must acknowledge and implement a management of safety at the board of the ship. "Just getting by" is an attitude uncompetitive seafarers or maritime companies may accept, but this is the attitude of amateurs with no professional standards.

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