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Improving Crew Processes and Operation Matters of Ship Management

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Abstract – The basic principles of crew management it is possible to understand how a good ship can function well. Examining different subjects of the management to align a shipping company strategy toward a successful crew as the crew is the most important asset of the company. Thoroughly understand the key functions in ship management and the responsibilities in each area i.e commercial, operational, technical, and crewing, bunkers, finance & administration. Understand the different types of organisation structure from all functions in-house, part contracted or fully contracted out. Thoroughly understand the structure and essential components of a ship management contract.

Crew management as a key component of efficiency and operating costs including the role of the Master. Understand the essential elements of crew costs; basic wages, overtime, allowances, leave, social costs. Understand the relationship between flag crew nationality, manning levels and the recruitment of officers and ratings. Understand the advantages and disadvantages of using crewing agencies. Understand Standards of Training, Certification & Watch keeping (STCW) regulations. Be aware of International Labour Organisation (ILO), International Transport Workers Federation (ITF) regulations and understand their potential intervention on non-national flagged vessels.

Keywords: Improving, Crew Processes, Operation, Ship Management, etc.

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INTRODUCTION

This study provides an overview of the basic principles of crew management on ships and demonstrates the ways crewing agencies operate, how they are structured and the method for choosing the right crew for your ship. The increasing demands for crews on ships have made crewing agencies more successful than in the past. They connect unemployed candidates to shipping companies around the world as the shipping business is a global market (Rodger M., 2008). It is fairly common that the shipping agent promises the new crew member more than the ship actually offers. For example one particular agent was nick named: “Magic Tongue”. As he was so good that even experienced crew members trusted his word (Ala-Pöllänen, A. 2012).

There are two different kinds of agents that one distinguishes between, which comprises of the in house and independent agents. The advantage of the independent agent is that the crew member has the option to choose which company they want to work for and not just the type of ship they would like to join. On the other hand, the in-house agent has a better access to information about the ship and company (Barsan, E. 2012). Most agents have offices in different parts of the world such as Cyprus, Singapore, Rotterdam and Hamburg. Agencies carefully select locations for future branches based on the Country in which they plan to recruit, while the head office is in a country with tax advantages (Baylon, A. 2011).

The most important person on the ship is the Captain as he/she is responsible for the crew, ship and its cargo. Furthermore, he/she is the representative of the company in every port and responsible for loading and offloading the cargo as it is intended (Bloor, 2009). Around 40 years ago there were only Officers and seaman on a ship as it had only sails. Through the Industrial-Age engines replaced sails on ships, which made them more complex than before. The engine and bridge work is completely different from each other and requires highly skilled personal for the duties in these areas (Finnish Transport Safety Agency 2011). It is difficult to predict the future but looking at present facts of ships and its crew members, it is possible to forecast future outcomes. In the past the most crew members shared the same culture and language, which was influenced by strong hierarchies in society (Gekara, V. 2008). For example, aristocrats took on the role of Officers on a ship and peasants filled up lower ranking positions. This structure changed when societies became democratic giving more freedom and power to the masses. This led to the formulation of a new crew

structure on ship as employees from difference cultural backgrounds had difficulty accepting each other.

REVIEW OF LITERATURE:

The growth of third party ship management has been essential in the past decades and has been the outcome of companies' pressure to adopt new technology in order to improve the quality and efficiency of their operations. (BIMCO 2009) reports that there are numerous advantages in employing ship managers, such as their ability to outsource many difficult and labour intensive elements of ship operation and management. It is an arrangement that suits an industry where demand for ships and commodities is notoriously cyclical (Hetherington 2006). It also enables a small or medium sized owner to operate the vessels without the need for a large in-house organisation. Moreover, placing this small fleet with a sizeable ship management company will automatically acquire the advantages of being part of a larger fleet, such as excellent purchasing power for stores, repairs and other matters, which the manager in command of a large fleet is capable to obtain (Horck 2010).

In the 1970's, NASA developed a training program known as Crew Resource Management (CRM) aiming at improving operation safety. Cognitive and interpersonal skills rather than technical competences are the basic concerns of CRM. The first generation CRM courses focused on psychological factors, such as style of leadership, assertiveness and interpersonal communication. The courses advocated general strategies of interpersonal behaviour but did not provide clear definition of appropriate cockpit behaviours. As the training evolved, the course became more team oriented and from cockpit personnel expanded to other groups - flight attendants, dispatchers and maintenance personnel. CRM has been integrated to technical training and became a part of all flight trainings. Specific modules address issues such as team building, briefing strategies, stress management, situation awareness and decision making. The basic idea of CRM is based on the assumption that error is inevitable as far as human factor is present. The benefits of non-punitive approach to errors and developing strategies of error management are stressed.

CRM can be seen as a set of error countermeasures with three lines of defence - avoidance of error, trapping incipient errors before they are committed, and finally, mitigating the consequences of those errors which occur and are not contained (Hoyland, C. 2006)). During the 1980s and 1990s CRM was adopted by many other industries - military aviation, shipboard crews, medical/surgical teams, offshore oil crews, nuclear power plant operating crews, rail industry and other high-consequence, high-risk, time-critical industries.

So far, there have been no systematic analytical writings on crew management in the shipping industry. Such literature as there is consists of handbooks written either as textbooks or as instructions by individual shipping companies and shipping organizations such as ISMA, ISF, and P&I Clubs.

Lloyd's Maritime Academy refers to crewing as one aspect of the greater field of ownership, ships operation and ship management, which itself is a part of the shipping industry that covers all main areas of international transportation and international trade. In the same source, it is explained that the role of crew management reveals the broad and valuable spectrum of services that can be obtained in many parts of the world for the third party management of seafarers that ensures the ship owner/manager gets value for money.

Crewing Agency: The increasing demands for crews on ships have made crewing agencies more successful than in the past. They connect unemployed candidates to shipping companies around the world as the shipping business is a global market.

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Locations where seaman are frequently recruited:

- Belgium
- China
- Denmark
- England
- Finland
- France

- Germany
- Greece
- Japan
- Norway
- Philippines
- Poland
- Portugal
- Spain
- Scotland
- Taiwan

Crew structure: The most important person on the ship is the Captain as he/she is responsible for the crew, ship and its cargo. Furthermore, he/she is the representative of the company in every port and responsible for loading and offloading the cargo as it is intended.

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Most nautical schools around the world are under the impression that the period spent studying bridge and engine are lengthy, which has led most to split the education into two separate subjects instead of undertaking both concurrently. Nevertheless, in France nautical students are required to acquire both engine and bridge certifications in order to qualify as nautical Officer/Engineer.

The structure on the ship requires the Captain to provide orders to the 1st Engineer. The 1st Officer also referred to as Chief Mate and is responsible for the bridge and deck work on a ship, while the 1st Officer or 1st Engineer is in charge for the engine department. Both bridge and engine staffs have several Officers or Engineers that share the responsibility between them. For example, the watch is divided on a ship with three Officers to allow each Officer/Engineer two shifts.

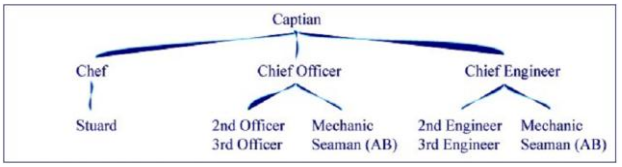
1st Officer/Engineer	00:00 – 04:00	12:00 – 16:00
3rd Office/Engineer	04:00 – 08:00	16:00 – 20:00
2nd Officer/Engineer	08:00 – 12:00	20:00 – 24:00

The above working schedule provides each Officer a working day of 8 hours and resting time of 16 hours. This separation is fairly common on Pan Max container ships, which travel long distances. On smaller ships such as Feeder the watch time might increase to 12 hours on duty and 12 hours off duty due to the high work intensity in harbours.

In a port it is common that most staff member are on duty due to loading and unloading cargo, refilling heavy fuel, engine maintenance and dealing with local agents and regulation systems.

The Officers and Engineers are supported by a larger work force. These seamen are employed to carry out various tasks consisting of lookout, oiling the engine, repair and paint jobs as well as loading/offloading cargo and supplies and mooring the ship.

Furthermore, only the Captain is permitted to instruct the Chef on ship regarding his duties. This is a highly responsible task as good food equals a content worker.



Crew mixture: To make a ship operational and sea worthy a good and reliable crew members are required. It is ideal to have two different nationalities of crew men on a ship, though this is not is common. To date the biggest mix recorded is 7 different nations on one ship.

There are various regulations regarding the crew on a ship, one of which is SOLAS (Safety of Life at Sea). In this particular policy it states that all crew members have to have one common language due to safety reasons. For example, during an emergency all crew members have to understand the instructions intermediately without hesitation due to translation. This does not mean everyone has to speak English; if all crew members are capable of another language such as Greek, they would comply with this rule.

In the past it was common that most of the crew were from one country. Today things have changed and it has become a practice to have two different nationalities on a ship. This solves the problem of different wages. A German might not work as a Chef on a tanker but as an Officer because of the salary difference. On the other hand, a Philippi no would gladly work on a tanker as a Chef because of the different living standards in his country. Furthermore, if countrymen get highly dissimilar wages it creates personal problems on the ship.

When mixing the different crew member together one has to be very careful, which countries to choose. For

example, an English Officer and French Crew would not work well together as team. In comparisons an English Officers and Philippine Crew would be a far better combination. Additionally, the Chinese are not permitted to work with seamen from other Countries on a ship due to their communist government policies.

Crew Education: The educational path to become a Captain is very strict and can be lengthy. In order to gain the rank of a Captain, it is essential to climb the shipping career ladder. This means most candidates aiming for a position as Captains have to start their career as Cadets and then gradually develop the relevant experience and skills required to hold a position as 3rd Officers, 2nd Officers and 1st Officers before they will be considered for a position as Captain of a ship.

To acquire the basic knowledge on a ship it is common practise for potential candidates to join vessels as a Cadet for a period of 12 month. The position of a Cadet is considered a low ranking position. However, it is through being a Cadet that most candidates develop the basic skills required to sustain a working life on a ship. Furthermore, being a Cadet can assist potential candidates to decide whether to pursue a career in the industry.

In order to obtain a position as an Officer, most candidates are required to undertake an international certified educational that provides an understanding of relevant subjects that are needed in order to manage a ship, such as mathematics, technology, meteorology, law and health and safety. A ship's presence offshore creates lack of access to data so most often crew members are required to be multi-skilled because of the endless possibilities that ships encounter while offshore.

The educational structure of how a course is implemented in College or University is not controlled by international standards though the examination is assessed by international standards. At present, there are two known educational structure being used internationally and consists of the following:

- Nautical students are required to undertake degree level education and thereafter commence on their as 3rd Officer on a ship.

- Candidates can also oft to undertake vocational courses and after successful completion apply for an Officer or Engineer positions.

STCW (International Convention on Standards of Training and Certification) states that an Officer is required to have one year experience on a ship as an Officer/Engineer in order to qualify for a Chief Officer position. An additional year worth of Chief Officer Experience is required before one can be considered for a position as a Captain. Additionally, nautical staffs have to undertake continuous education to ensure a safe and sound knowledge of the ship, which is managed by STCW an international regulation.

CONCLUSION:

The increasing breadth and depth of all variants of regulation since the 1980s – regional, national and international regulations and shipping industry's own self-regulation – have required improved managerial sophistication among ship managers. In many cases, accordingly, conscientious ship owners with relatively small numbers of ships, and sometimes larger owners with diversified fleets, have found it prudent to sub-contract for a range of operational functions of which crew management is the most frequently outsourced function. Looking at the basic principles of crew management it is possible to understand how a good ship can function well. Examining different subjects of the management to align a shipping company strategy toward a successful crew as the crew is the most important asset of the company. As we have seen in the Introduction, ship management companies have proliferated since the 1980s and the proportion of the world's fleet under one or another operational management function has shown steady growth. However, although there has been a growing market for sub-contracted (out-sourced) management functions, and especially for crew management, competition has often been intense and mergers/consolidations have inevitably followed. At the same time, increasing specialisation in types of ship working in international and intra-national trade, and the range of ship varieties often to be found represented in medium–sized ship owners' fleets has further complicated the crew management function. These circumstances of growth in scale, regulatory requirement, and specialisation in ships and trades have, simultaneously, complicated the management function and correlatively driven a search for enhanced productivity in administrative processes. With these contextual features to the forefront, this study has investigated the current crew management processes and practices of one of the larger third party ship management companies. Through an action research programme, this study first devised and then implemented new IT instruments, which proved to enhance the efficiency and effectiveness of the administrative process and practices.

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