

INFLUENCE OF SHIPPING COMPANY ORGANIZATION ON SHIP'S TEAM WORK EFFECTIVENESS

Capt. Toni Bielić, Ph. D.

University of Split

Faculty of Maritime Studies

Zrinsko-Frankopanska 38, HR – 21000 Split, Croatia

ABSTRACT

This paper deals with the main organizational facts which could influence team work on board ship. These facts are: resource management, organizational climate and organizational processes. Resource management is observed from the perspective of the company management board through personnel policy, expenses and purchasing the necessary equipment. Organizational climate is analyzed from the aspect of working atmosphere within the framework of team work on board ship. The main research is directed to group moral as the main variable of a stable situation in organized crew operation. In that sense, the important interactive facts are determined which could the communication between the shore based company and the ship. Organizational processes are viewed as influence of the company policy on everyday activities on board ship. Specially, the influence of matrix and functionally structured companies on team work are compared.

1 INTRODUCTION

A general prerequisite for effective acting of a group, for example of a ship's crew, is the existence of a common aim and conviction of its realisation. Such a group, besides its being united in the achievement of a common goal, can act appropriately only within the framework of adopted principles and rules, and as such can be defined as organisation. The organisation meeting the principles of the definition mentioned above will present the features of a system with input, output and functional parameters (IMO Model Course 5.04, 1992:1.1).

Coordination of the company policy with the international regulations and conventions concerning the safety of navigation determines the relationship Company - Ship. In such a relationship the Ship's Master is *longa manus* or an extended hand of the Company management. He is authorized to protect Company interests and at the same time to manage the operations related to navigation and ship's exploitation.

In such relationships the Ship's Master only formally communicates with the Company management whereas the privilege of actual control and influence is held by certain Company departments and Deck and Engine supervisors. Consequences of such an organisational structure are the shortcoming of team work as well as limited freedom in decision-making by the Ship's management, a reduced need for mutual consulting and an increased possibility of clashing interests of the Ship's departments and the Officers themselves. This has a direct impact on a further reduction of the productivity level of the Ship's crew, increase of the Ship's expenses, and consequently on the possibilities of realisation of the common goal. In that sense decentralised decision-making offers better possibilities of coordination between certain Company departments and the Ship as well as an improvement in coordination of specialists on board through the introduction of team work.

Some shipping companies have developed a dual or matrix organisational structure as a decentralised form of management. Such an organisational framework has led to an

improvement in interaction of certain functional departments of the Company as regards mutual consulting, information exchange and interrelated acting. Work integration of certain Company departments in order to achieve a common goal, i.e. allowing a number of independent departments to participate and take up tasks so as to realise a common goal has brought to a revival of the Ship's managing personnel motivation. In the decision-making process requirements and criteria of different parties including Ship itself are taken into consideration. Therefore division of labour is no longer monolithically determined by its function but is made dual according to needs and implies dual responsibility as well as dual source of information. Such an organisational framework initiates team work and better communication between the Ship's Master and Officers due to common consideration of all elements, e.g. Ship's maintenance and passage planning, so as to be able to propose the best solutions to the technical and operational sectors.

2 RELATIONSHIP BETWEEN FUNCTIONAL AND MATRIX ORGANIZATIONAL STRUCTURES OF A SHIPPING COMPANY

Merchant ships commonly have a simple organizational structure in which the Ship's Master has the highest authority that is due to him lawfully.

Hierarchical ship's organisation derives from an early concept that longed for a mechanistic organisation. Such an organisation implied input and output parameters that were supposed to maintain the function of the organisation according to a previously devised scheme that took little consideration of the people involved in the organisation. The principles of such Ship's organisation survived in the hierarchical organisation.

The aim and purpose of a functionally structured ship organisation is to achieve efficiency and effectiveness through adaptation of people to the mechanistic model of behaving and carrying out duties. Hierarchical structure and the principle of subordination also determine the concept of authority that represents and maintains such an aspect of organization.

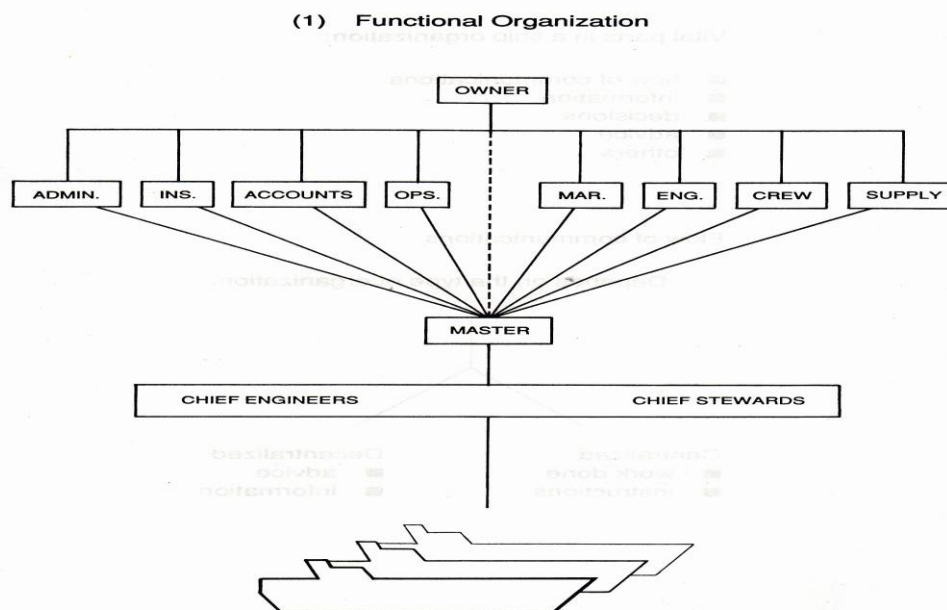


Figure 1: Functional scheme of a hierarchical shipping company

Source: Human Resources Management – IMO 1992., Part D, p.28

The concept of functional organisation leads to the phenomenon of «unstable crews»¹ since for each period of navigation the crew is formed all over again from individuals who have previously been engaged aboard different ships. The consequences of such an organisational model are reflected in superficial interaction in mutual contacts of seamen during their term on board that is carried out due to the possibility of meeting again. Minimizing social activities and avoiding interaction aim at avoiding conflicts.

The functional model of a shipping company has universal organisational structure with regulated tasks and behaviour at work, centralised control and hierarchically emphasised chain of commanding. Such organisational characteristics besides the mentioned above manifestations of an unstable crew cherish bureaucratic relationships and affect deficient motivation, communication and cooperation among officers, the Master and certain specialist departments on board. However, exceptions to this rule are some shipping companies with a very complex organisation since some of them are only a part of a larger group, i.e. company. Consequently, the internal organisational structure can differ from the one shown in Figure 1. For example, «matrix» structure of such an organisation requires personnel that takes up a number of different roles and has a broader range of responsibilities (Figure 2).

(2) Matrix organization

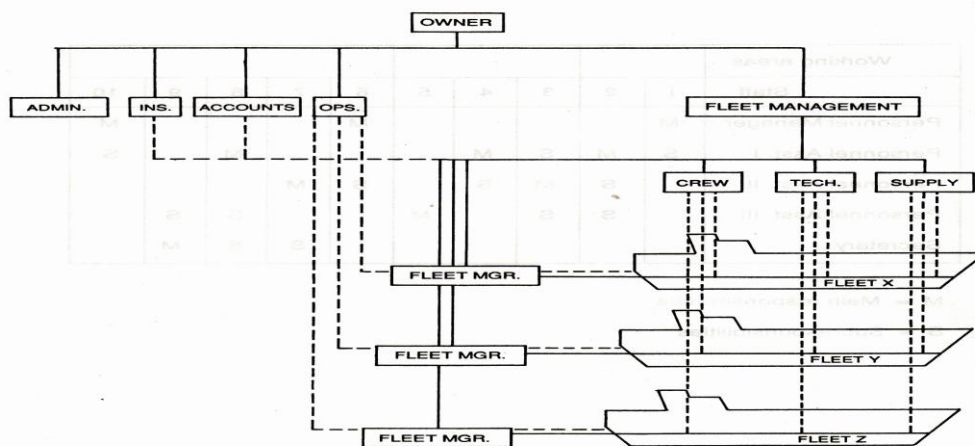


Figure 2: Matrix scheme of a shipping company

Source: Human Resource Management – IMO 1992. Part D, p.29

Matrix organisational structure has been developed to meet the extent of the fleet and technological variety of ships within certain companies as well as to reduce and have better control of expenses. The basic change with regard to the functional structure is in the decentralisation of management that has brought to higher motivation and initiative of the Master, Officers and Chief Engineer on board. Decentralised decision-making has led to the need of forming fleet management and setting up the function of project leader. Within every fleet (x, y, z) the function of project leader has been set up to represent the shipping company interests and coordinate the activities of functional departments of the Company in relation to the Ship. The basic function of the project leader in the relationship Company - Ship is setting

¹ Crew instability influences the type of relationships set up on board. More about this subject in Bilić, M. (2000) «Debirokratizacija i decentralizacija u brodarstvu», Pomorstvo, pp. 169-179

up balance between ship's requirements and functional departments of the Company that are prone to neglect the interests of individual ships so as to meet the interests of the whole (profit).

On the basis of matrix organisation it is also possible to develop conditions for team work as a modern organisational form of acting and work of the Master, Chief Engineer and other Officers of the Deck and Engine Department. The team is headed only by the Master with his specific management style as a participating and supportive leader while the other Deck Officers, Chief Engineer and other Engineers accept his leadership contributing to the Master's effective decision-making by participating in seeking for the most appropriate alternatives. However, transition from the hierarchical to team form is only the basis for an effective acting of the crew. Resource management, organisational climate and organisational processes represent the whole of organisational influences building up a perspective in the coalition of interests of the Ship's crew and Company management.

3 RESOURCE MANAGEMENT

This category falls into the domain of decision-making at the level of Company management board. Decisions made regard the following resources:

- personnel policy;
- expenses
- provision – replacement of necessary equipment.

Personnel policy involves human resources from the aspect of management, selection and training. Expenses are viewed from the aspect of their reduction and adequacy of funds to cover the expenses of maintenance of the equipment (ship) as well as seamen training. Provision or replacement of the equipment includes the analysis of the existing equipment from the aspect of efficiency and provision of new equipment to satisfy the purpose intended as far as quality and application are considered.

Generally, decisions made by the Company about managing the above mentioned resources are determined by two basic aims, i.e.:

- maintenance of safety and
- Ship's commercial exploitation.

In an age of prosperity and favourable freightage both goals can be balanced and fully achieved. However, there are periods of crises on the Ship's capacity market due to extensive offer and low freightage. Such bad «budget years» usually put Companies in a position to choose between achieving either one or the other goal. Dilemmas regarding the choice of the priority goal are most often solved by reducing expenses involved in maintaining safety for the commercial exploitation of the Ship to benefit from it. In this matter safety includes training and appropriate competence of seamen as well as appropriate maintenance of the Ship and her equipment.

4 ORGANISATIONAL CLIMATE

Organisational climate implies a vast area of organisational variables affecting the work of employees. Formally, it is defined as «*a stable situation in organised human acting*»

(Jones, A. P. 1988). Generally, organisational climate can also be viewed as atmosphere at workplace or company culture. The state of organisational climate or atmosphere at work on board ship is reflected in the management style, delegating, communication channels and readiness for immediate action. In this sense the basic variable of a «*a stable situation in organised crew acting*» is the morale of the group represented by the Ship's management or team together with the rest of the crewmembers on one side, and the morale of the Company management as an influential group on the other side. There are several different definitions of morale as a term referring to a group. In this light Maier points to Allport's statement according to which «*morale is the attitude of an individual with regard to the aims of the group*». Interpreting the statement mentioned above Maier says «*that a mental state called morale involves both individual and social aspects*» (Maier, R.F. 1964:123). According to Allportu (1942: 3-18) high morale of a group is based on the following elements:

1. *An individual must have firm convictions making his life worthwhile to provide him with energy for and confidence in the future;*
2. *He must be aware of the effort made to defend or increase his values;*
3. *His values must essentially conform to the group values and there must be a coordination of efforts regarding the achievement of goals.*

If the above mentioned elements are applied to the relationship Company - Ship from the aspect of organisation we can conclude that the matrix structure of the Company on one hand and well-established team work of the Master as the leader and the Chief Engineer and the rest of the Officers as team members on the other hand enable fulfilment of the above mentioned conditions of high morale. Therefore high morale also means an affirmative atmosphere at work or a pleasant organisational climate. The above mentioned requirements for the achievement of high morale and an affirmative atmosphere at work include both work satisfaction enabled by the appropriate (participating) leadership of the Master and realisation of certain values by the Company and Management team on board.

The values mentioned above are realised by the Management of the Shipping Company in coordination with the Master and Team members. According to Maier (1964:132) «*analyses show a close relationship between productivity and the Manager's behaviour*». In other words, on the basis of good communication and coordination between the Company and management team on board as well as among individual team members prerequisites are satisfied for the realisation of the above mentioned values. The result of the realisation of values is a higher productivity of team work. It becomes manifest in better navigation safety, greater readiness to act in emergencies and better maintenance of the Ship. In this sense Muchinsky (1997) says :

«If the organisational climate points to bad communication and coordination between the Managerial body and other members of the organisation, or if not everyone has understood his tasks and his specific position in making and implementing decisions, the safety of such an organisation is threatened and open to the possibility of the occurrence of accident.» This definition clearly emphasises the cause-effect relationship between the organisational climate and recent occurrence of maritime accidents such as those involving Exxon Valdez, Norwegian Dream i Oceanos.

The current Company policy and cultural factors are also very good indicators of the organisational climate. Company policy is the official guideline for decision-making by the Managerial body, and among other things refers to promotions, selection, overtime work, involving investigations of accidents as well as use of safety equipment. Cultural factors on

the other hand point to unwritten rules, common values, attitudes, beliefs and habits within the organisation. Such cultural components also point to organisational climate as set forth in the following statement - «*cultural factors interacting within an organisation point to mutual relationships and organisational climate*» (Muchinsky, P.M. 1997.).

5 ORGANISATIONAL PROCESSES

Organisational processes fall under the authority of Company management that regulates everyday activities on board on the basis of decisions made and rules. This involves the application of standard operational procedures and checking if the tasks planned have been carried out.. Relevant activities in this domain are, for example, work pace and time pressure to maintain sailing schedule. The influence of Management on work pace from the aspect of maintaining sailing schedule can negatively influence the safety of navigation. Focusing on increased work pressure controlled by supervisors as representatives of Company management leads to oversight of technical components and fatigue of the crew. A clear example of the consequences of such acting is the accident of *Herald of Free Enterprise*. Fatigue on one hand and simultaneously striving to carry out ship's operations and maintain the sailing schedule influenced the occurrence of accidents involving *British Trent*, *Western Winner* and *Exxon Valdez*. In this sense we support the statement that «*occurrence of an accident means one urgency situation in excess*» (Reinhart, J. 1990).

The influence of the Shipping Company organisation in its negative aspects has maximum effect with the ship's crew organised according to the model of vertical organisation. This is due to the fact that functional hierarchical organisation emphasises the component of carrying out responsibilities not taking previously into consideration personal attitudes, i.e. opinions of the crewmembers. Vertical organisation puts emphasis on the Master and Chief Engineer as key persons for the realisation of Company interests. Regarding their management function the Shipping Company can realise its interests exactly through subordination of the Master as a key person that due to the strength of the formal authority of vertical organisation can relate «his» decisions, i.e. the decisions of «the Company», as unquestioning orders.

However, with the Shipping Companies organised on the matrix principle the component of hierarchy does not strike the eye in a negative, order-issuing form due to the decentralisation of management. Negative features of the functional organisation regarding “issuing orders – carrying out orders” are dispersed in the way that «*Common decision-making by the Headquarters on shore and the Ship management represents some perspicuous advantages. Firstly, the interested parties mutually exchange pieces of information; secondly, in the process of decision-making needs and measures of all parties are taken into consideration, and thirdly, needs of the Ship become equal to the needs of the Headquarters on shore, and here comes the essence of getting power back on board*» (Biličić, 2000: 175). In such a context the roles of the Master, Chief Engineer and Officers are no longer only functional and operational but acquire wider perspective on the basis of internal and external coordination and extended responsibility. It is exactly the element of coordination and extended responsibility that leads to greater autonomy of the Ship's management team. With regard to this fact the Company can no longer «lobby for» its own interests while neglecting the Ship's interests. In such an organisation the Master is no longer *longa manus* of the Company in the sense of unquestioning carrying out orders but there is also the feedback based on critical judgment and opinions of the Master and the Ship's management team. The

feedback enables «the project leader» as the person on shore representing the Ship's interests and coordinating the activities of individual departments of the Company in relation to the Ship. Although the matrix form of organisation is «a more democratic» form of managing a Shipping Company, it is essentially based on the hierarchy of power. As such it emphasises the responsibility and competence of individuals with an accompanying increase of the decentralisation of management. The Company requirements concerning working hours, ship maintenance and sailing schedule are also influenced by the management team that makes compromises in their realisation regarding the objective conditions of the Ship and navigation. Nevertheless, the commanding authority of the Master remains clear but above all cohesive bonds among the Master, Chief Officer and Chief Engineer are strengthened. The rest of the Officers become active participants and are given greater responsibilities in a larger number of tasks than within functional organisations. Organisational processes set up in this manner, once they have been well-tuned, also become the basis for the introduction of team work on board following the principle of social unification. Such an organisational form of work of the Master as the Team leader and the Chief Engineer and Officers as Team members allows for optimum conditions regarding both the communication with the Company and the safety of navigation. Namely, the component of «foreseeing» future happenings is based on effective communication, coordination and cooperation, and it reaches its full expression in the model of team work on board. The component of «foreseeing» is an essential element of operational and preventive acting on board both from the viewpoint of everyday activities and from that of recognizing conditions for the occurrence of emergencies. It is exactly from this aspect that team work is considered the optimum organisational form of work and acting, and it really enables the highest level of preparedness of the Ship's Crew in all kinds of conditions in the navigation and exploitation of the Ship.

6 CONCLUSION

The following conclusions can be made:

- Organisational factors as expressed through organisation and the Company policy affect the organisational model of ship management, and consequently the quality of the work carried out by the Master, Chief Engineer and the Officers in regular circumstances and emergencies.
- An emphasis on the hierarchical structure of commanding can suppress effective carrying out duties and tasks while free and interactive relations can enhance it.
- Matrix-organised Shipping Companies represent an alternative to the functionally organized Companies from the aspect of the decentralisation of management as a prerequisite for the introduction of the effective model of team work on board.
- It is possible to argue that functionally organised Shipping Companies will in a certain phase if their development adopt matrix organisational structure due to a number of advantages regarding both the expenses and safety on board.
- Switching over to team work on board on the basis of social unification is objectively possible and most favourable in the conditions of matrix-organised Companies. The reason for this is the decentralised form of management as the basis of communication enhancing the correct forming of team work on board accompanied by a positive experience of authority, coordination and individual responsibility. This experience exists due to the earlier close relatedness at work, mutuality and coordination of the Master, Chief Engineer and Chief Officer as the

nucleus of the future extended team. On the other hand, the experience mentioned above does not exist with strict vertical organisation of Shipping Companies that is the result of the functional organisation. In such Ship organisations as far as communication is concerned the Master and Chief Engineer are distant due to the effect of «antagonism of specialties», and between the Master and Chief Officer there is a strict subordination relationship based on the principle of rank and the level of responsibility. Thus, vertical, strictly centralised Shipping Companies are not a good basis for the transition to team work. The Masters, Chief Engineers and Officers who used to work in such organisational circumstances require necessarily a transition period of decentralised management to obtain positive experiences of mutual communication, coordination and reciprocity.

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