Expanding Frontiers -

Challenges and Opportunities in Maritime Education and Training

The role of formal and informal leadership in the ship crew

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Abstract: The current intensification of world shipping and the consequent growth of ship size and speed considerably complicates the role of human factors and the importance of leadership in the crew organization. Managers of all levels should possess leader's qualities, both in the management of shipping companies and on board ships. As to the latter, this requirement has become mandatory after the IMO convened Manila International Conference 2010 made amendments to the STCW code. Tables AII/2, AIII/2 in the function "Controlling the operation of the ship and care for persons on board" contain a new competence "Use of leadership and managerial skill", which includes a number of capabilities and skills as necessary professional qualities for both deck and engineer officers of all the levels of management. The authors of these publications very often confuse the notions of "leader" and "manager" using them as synonyms. The manager is a formal leader officially entrusted with managing a certain group of people or an organization and arranging their activities. The manager bears responsibility for the functioning of the group or organization before the appointed (elected, approved) body and has the authority to punish and encourage his subordinates in order to stimulate their productive (scientific, creative etc.) activity. The principal task of the manager or the managerial body is the provision of the achievement of the maximum effect in the activity inn which the group or organization is engaged. There may be, besides the formal leader, an informal leader (unauthorized by any structure) who is a person who, due to his capabilities and personal qualities,

is able to lead people and influence their behavior. The influence of such an informal leader may sometimes be even stronger than that of the formal leader if the latter does not possess the qualities necessary for the successful management of people. The informal leader is a member of the staff who does not occupy any managerial position but, due to his personal qualities, life experience and behavior, occupies an exclusive position; that of the leader. The decisive factors determining the possibility of informal leadership include age, position, professional knowledge and skill, psychological characteristics, personal qualities etc.. There are certain peculiarities of management and leadership in ship crews where the authoritative style of management prevails. This is connected with statutory relationships, strict subordination and the extreme working conditions of the operations. The task of the official manager may be considered to be the control of the capabilities of the informal leader. According to the requirements of the STCW78 Convention, ship officers (both deck and engine officers) should possess the required professional knowledge and the practical skills to ensure the observance of disciplinary regulations, maintain an atmosphere of mutual understanding and amiability and care for the safety of their subordinate crew members. Leadership skills in an operational situation ensure the effective execution of ship operations, the requirements of the system of safety management and watchkeeping in critical situations. They also help to prevent panic, organize the necessary actions in the struggle for survivability of the ship, the rescue of people and the safety of the cargo.
Keywords: crew, human element, leadership, management, safety, team.

A crew's role, along with the role of the human element and leadership in crews, has been growing as navigation intensity develops and the size of ships and transportation speeds increase. Leaders at all levels in shipping companies' administrative apparatus and onboard must have leadership qualities.

As for the latter, this requirement became mandatory after the introduction of the relevant amendments to the STCW Code at the International conference organized by IMO (Manila, 2010). A new competency, "Use of Leadership and Managerial Skill", was included in Tables A II/2 and A III/2 under the function of "Controlling the *operation* of the *ship* and *care* for persons *on board and the management level" and it includes a number of abilities and skills as mandatory professional qualities for Navigators and Engineers of all levels.*

Authors of publications dedicated to the leadership phenomenon quite often mix up notions of "leader" and "manager"; using them as synonyms.

A manager is a formal leader; a person officially vested with functions of personnel management and organization of work. A manager is liable to an appointing (selective, endorsing) authority for a group's (staff's) functioning and has strictly defined staff sanctioning authorities (punishment and incentives) to affect their production (scientific, creative, etc.) activities. The goal of management is the provision of an administration for an organization (a group) with the aim of achieving an optimum effect of mutual activities.

Along with a formal leader there can be an informal (unauthorized by organizational authorities) leader; a person who is able to attract people and influence their behavior due to his/her abilities and individual qualities. An informal leader's impact on an organization's work results can quite often be even more significant than the influence of the formal leader who does not have the qualities required for successful personnel management.

An informal leader is a member of a team (group) who doesn't officially hold a managerial position but has taken a special position, leadership, due to his/her individual qualities, life experience and behavior. Significant factors defining possibilities for informal leadership include: age, position, professional knowledge and skills, personality psychology and personal traits.

There are several peculiarities of management and leadership in crews where authoritarianism is mostly used as a style of management. It concerns statutory relationships, strict subordination and extreme working conditions.

A manager's goal can be considered as controlling the informal leader's abilities.

In compliance with the requirements of STCW Convention 78, ship's Officers of all levels (Mates and Engineers) must have relevant professional knowledge and practical skills, ensure the following of current disciplinary rules, maintain an atmosphere of mutual understanding and benevolence among a ship's crew and take care of crew members subordinate to him/her.

Leadership skills in operational conditions ensure effective fulfillment of the ship's operation, requirements of the Safety Management System, watchkeeping, help to prevent panic in an emergency, organize all the activities of damage control, rescue of people and ensuring cargo safety.

Leadership and management are phenomena having considerable differences. The first one is their origin. Leadership appears naturally, i.e. it is a result of the processes happening in a small group which defines its structure. That means that leadership is a result of intragroup processes. A manager is appointed from the outside, usually from a higher management level.

Leadership in a small group is a phenomenon of an individual's impact or influence on opinions, evaluations, relationships and behaviors of an overall group and its single members.

The influence process through abilities and skills or other resources necessary for people is called *informal leadership*.

Despite having a definite similarity, differentiation between 'a leader' and 'a manager' is essential for the psychology of small groups:

- management can exist only in formal groups,
- leadership is in both formal and informal groups;
- a manager carries out control over the official relationships of a group as "an organization", and a leader mainly controls interpersonal relationships within a group;
- a manager possesses a definite and restricted sanction regime (ways of incentives and punishment) for group members, while a leader can use only the means of personal influence (persuasion, suggestion, etc.).

An important difference concerns ways of performing leadership and managerial functions. Leaders' functions have an informal character in which he/she does not issue orders and written directives, however his/her decisions and instructions will be implemented by group members. Meanwhile, a manager must draw his/her instructions up officially. Finally, the third difference concerns the spheres of leaders' and managers' influence.

A leader's influence has been defined to be performed in both physical and mental spaces. Thus, if a person does not consider that he/she is a member of a group, the leader's influence does not apply to him/her. Meanwhile, a person working for some organization (employee) who might not inwardly consider being loyal to it, does not reduce the influence of his/her formal leader's instructions on him/her.

Thus, each cooperating group of people has formal and informal structures which can either coincide or not. For each of these structures there is a person coordinating functions and keeping people in a group with his/her actions. A manager is this kind of person for a formal structure, while a leader is the one for an informal structure. The most favourable situation for these group members is when these structures coincide, i.e. when one person combines as both a manager and a leader. Such a manager-leader has greater possibilities for influencing group members; it is easier to manage them. In practice, formal and informal structures mostly do not coincide and the manager needs to maintain good relationships with leaders of informal groups within the organization managed by him/her.

The display of leadership qualities can be more fully manifested by upper managers in independent forms.

Essentially, this should be taken into account when controlling a ship's operations. Thus, a master successfully combining the functions of both the ship's crew manager and their leader will surely provide efficient and safe operation of his ship. An experienced, competent Chief Engineer in a crew will ensure fast and quality fulfillment of maintenance work regarding a ship's operation.

A leader can be formal (for instance, appointed for carrying out management of a certain allotment of work, a subdivision). Along with a formal leader there can be an informal one (unauthorized by an organizational structure) in an organization, a person who by virtue of his/her qualities can attract and lead people. An informal leader's influence on an organization's work results can quite often be even more significant than a formal leader's, who does not have the qualities essential for successful personnel management. Thus, for example, ship operations controlled by a ship's officer without sufficient experience and knowledge might cause his/her substitution in operations management by an experienced crew member who has previously performed this work as an informal leader.

To be the manager does not automatically imply that the same person is the leader of an organization since the informal framework is, to a considerable extent, natural for informal leadership. One can occupy the highest position in an organization but fail to be a leader.

For example, an official leader in school classes occupying a leadership position is not always the person of the highest authority in a group. Sometimes he/she is nominated by adults rather than the class (children themselves); therefore the supervising teacher should either know his/her pupils or give them an opportunity to choose the monitor by themselves. Unless the monitor is simultaneously "an informal leader" the person having high authority over pupils will corrupt the group's and organization's efficiency and the performance of activities will drop. A conflict might arise between formal and informal leaders. Therefore, it is very important for teachers to have an understanding of the class leader.

There is a similar position in cadet groups in a college. That is why a company's leader-commander should know which of the cadets has authority in a group and can influence the group's behavior (informal leader).

The use of an effective combination of both power bases is considered perfect.

Informal leaders are group members who do not occupy an official managing position but take a special place due to a set of personal qualities, life experience and specific behaviour. Informal leadership is based on competence, personal liking and a number of psychological attributes: for example, a person's ability to find an effective way out of difficult situations. The informal leader is usually an object of great attention in a group.

If the informal (natural) leader is outside of a formal organizational scheme he/she is often considered to be "a troublemaker". He/she might become a centre of collective resistance to an organization's influence and, if his/her inclination to domination is highly developed, i.e. if he/she actively shows love of power, he/she might start to consciously or unconsciously commit acts allowing him/her to become the leader of an informal group in its resistance to the organization. A gifted person occupying a position far lower than his/her abilities can direct his/her energy to trigger discontent in his/her group just because of despair. Such personalities often become coordinators of groups which can influence the psychological climate within a group.

As a rule, organizations of any type and size consist of groups. Therefore a manager needs to know the peculiarities of a formal and informal groups' appearance and understand the importance of an informal group's existence. Quite often informal organizations affect the quality of work completion and people's attitude towards labour and administration.

One of the greatest and most widespread misconceptions preventing effective management of organizations and informal groups is the initially low managers' opinions of these groups. Some managers persistently consider informal groups to be a result of inefficient management. Actually, informal group formation in an organization is a natural and quite widespread phenomenon found in each organization. They have both negative and positive aspects just like many other factors acting within the management area.

Key administrative mechanisms of control over groups' behaviour consists of finding natural leaders and controlling them. One of the modern theorists developed this thought, "Each manager should know who is a leader in each informal group and work with them, encouraging those who don't hinder but further facilitate achieving the organization's goals. When an informal leader opposes his/her employer, his/her great influence can undermine motivation and labour satisfaction of formal organization's employees".

As a rule, informal micro groups are formed from 2 to 10 people when working in a crew on a vessel. At the same time, micro groups are formed either on a professional basis (representatives of one service) or on the basis of work regime and rest (the same watch) coincidence or on the basis of interests, or ethnic lines, which is especially important in case of multinational crews.

Like formal organizations, informal groups have their leaders. Their main distinction resides in the fact that a formal leader (manager) obtains powers in a certain functional area, while an informal leader's sphere is the interpersonal relationships within the group. Informal groups can be of both positive and negative directions initiating conflicts.

There are some management and leadership peculiarities in crews where an authoritarian management style is generally used. They are related to statutory relationships, strict subordination and extreme working conditions. Like in any other group, relationships between ship's administration and informal leaders of micro groups can be subdivided into three types:

1. positive – an informal leader helps to solve tasks set by an administration and quite often serves as a linking element between ship's administration and the crew, i.e. group's management is carried out interactively.

2. neutral – group's management can appear uncoordinated. The way informal leadership is revealed is not related to tasks set for a crew and is carried out concurrently, without covering ship's administration's interests.

3. negative – is the worst option, when a leader and a manager are in conflict, group's relationships get worse, it is divided into micro groups hostile to each other.

Having an informal leader in a crew is often a sign of a lack of administration' s attention towards crewmembers. Holding various events, where the initiative belongs to the administration or management (safety meeting, management meeting) and holding various competitions (chess tournaments, photography contest) can help to restore management unity.

Thus, informal groups can either assist a group's official leader or be in opposition to him/her. Negatively oriented informal groups cannot be abolished with the help of orders; the formal leader should learn to cooperate with them and to neutralize their influence by encouraging them to achieve the group's goals.

Informal leaders are singled out in a crew due to their personal qualities having different 'levels' of:
- informal micro groups (watch, working crew);
- professional groups (deck, engine room);
- crew overall (inspiring liking and respect of a majority of a crew).

The main distinction of an informal leader from an official manager (formal leader) exists in the fact that he/she does not have an official status and official powers.

The list of factors defining the possibility of informal leadership is quite extensive: age, length of service, business competence, communication skills and initiative, intelligence, personal psychological qualities, and good oratorical skills. The mechanism of their appearance is connected with the fact that each group member admits (at least by their behavior) that a person aspiring to leadership is superior to them in one or a few parameters. 'Informal leadership' appears on the basis of interpersonal relationships between members. It is a so called leadership character.

Back in 1950s, R. Bales found experimentally that at least two types of leaders are singled out in each small group: emotional and instrumental. An emotional leader's function is ensuring the psychological climate within the group and care for optimal settlement of interpersonal relationships. He/she usually serves as an arbitrator or adviser.

An instrumental (business) leader is a group member who takes initiative in solving a problematic situation in compliance with the group's goals and has certain knowledge, information, skills and methods.

There are two main functions of an informal leader of the instrumental type; establishment of group behavior forms and motivation of each group member's behavior.

An informal leader is perceived as 'one of us', he/she uses the pronoun 'we' instead of 'I' when speaking about group problems; he/she is 'like most of us'.

Nevertheless, it is not the one who is 'one of us' but 'one of us but superior in something' due to experience, knowledge, social status, etc., who can lead in a group. Thus, the leadership phenomenon is inseparably connected with peculiarities of the leader's personality and that of the other group members.

A leader's status can be either situational or functional.

An emotional leader is a group member who takes the function of the group's mood control in problematic situations. Sometimes the emotional leader's position is called a centre of emotional contacts. In a positive way, an emotional leader is eager to prevent or settle conflicts and iron out or relieve emotional tension arising among group members in problematic situations. In a negative way, an emotional leader can become an initiator of panic, displeasure, hysterical reactions and the group's asocial behavior.

Besides the two most important functions of an informal group leader (establishment and maintenance of group's norms of behavior according to the established norms), such a leader can perform functions of:

- a group's behavior coordinator (distributes roles, duties and tasks);
- a supervisor of each group member's behavior (monitors fulfillment of assigned roles, duties and tasks);
- a planner of actions and means, with the help of which the group achieves its goals.
- an expert (almost in all cases when group members depend on a person whose technical knowledge and qualification are essential for fulfilling group's goals. Polarization of power, which can be used for strengthening a leader's role, takes place around this person);
- an arbiter (acts as a judge, prosecutor, advocate and comforter motivating behavior of group members; a leader uses informal social sanctions, i.e. methods, with the help of which people who know each other well express respect to those whose behavior corresponds to their expectations and show dissatisfaction with those who fall short of their expectations).
- an example (serves as a standard, model of behavior for other group members, i.e. provides them with graphic instructions of who they should be and what they should do).

- Group's fault bearer (sometimes the leader in this function is called 'a scapegoat'; a negative emotional leader in this case, when the group gets over a problematic situation, will really appear the object of attacks and accusations; this happens in the cases when the group loses illusions regarding actual goals and a personality of their leader).

A key administrative mechanism of control over a group's behavior is finding informal leaders and controlling them. One of the modern theorists developed this thought: "Each manager should know who is the leader in each informal group and work with him/her encouraging those who don't hinder further achieving organization's goals. When the informal leader opposes his/her employer his/her great influence can undermine motivation and labour satisfaction of formal organization's employees".

An obvious truth consists of admitting informal leadership as a natural phenomenon. Such a leader will, sooner or later, appear within any group numbering from 10 people. If he/she is still missing, it is just a matter of time. A group without a leader (like a leader without a group) cannot exist. A manager's task can be considered to be the informal leader's talent management.

An informal leader's significance in a crew can not be underestimated since sometimes accuracy and timeliness of ship's operations performance ensuring ship's safety can depend on it.

The main tasks of ships crews are ensuring the ship's operation safety, the ship's personnel labour protection from detected risks and constant readiness for actions in an emergency in the whole industrial and closed cycle of cargo transportation, technical operation and repair and preventive work.

These tasks are solved on the basis of a ship's safety management system. The ship's safety management system covers all the spheres of ship's production activity. It provides for:

- identification of main ship's operations (administrative-managerial and industrial-engineering) at the whole industrial and closed cycle of a port of delivery and cargo delivery to a recipient as well as operation, repair and preventive work;
- formalization, algorithmization and documentation of these operations in a form of normative procedures and instructions regulating a safe order and their performance methods;

A number of tasks and activities (operations) are performed according to each function given in the STCW Code 95. These are navigational and engineering watch, cargo operations, ship work, maintenance of ship's supply and equipment.

Groups headed by an appointed manager at management or operational levels are created for carrying out all ship's operations. This can equally apply to the functions specified in STCW Code 95.

It is necessary to take into consideration the existence of small groups, informal leaders in a crew and their influence on safety management and work organization on board. It is also necessary to take into account the fact that a new competence – "Use of Leadership Principles and Managerial Skills", which includes a number of capabilities and skills as essential professional qualities for a ship's crew, was introduced into STCW Convention, into table A-11/2 under function "Controlling the Operation of the Ship and Care for Persons on Board".

Examples of actual management of informal leadership in ship's operations can be given:
1. A Master ordered a Chief Mate to carry out inspection and scraping of rust and silt from ballast tanks making him officially personally responsible (a formal leader) for this work fulfillment. The Chief Mate was not experienced enough in carrying out such work, while a leading seaman had coped well with this work many times on this ship. The crew, knowing this fact, acknowledged him as an informal leader and

they, including the Chief Mate himself, followed his instructions. The Chief Mate regained his formal leadership after the work completion.

2. A Boatswain and 2 sailors received the task to weld on railings broken while unloading. The boatswain was officially put in charge of this work but, having no welding experience, he commissioned this work to a professional welder who, when having overall charge of the operation (informal leadership), began the welding work and gave instructions to the entire group including the boatswain.

3. A crew (12 people) consisting of citizens of Cape Verde arrived at a ship. A son of a famous oligarch of this state was among them. This OS was the youngest and most inexperienced among the group but, due to his social status, the whole group including a boatswain obeyed him. He was an informal leader of this group for 8 months having a contract of 12 months. After receiving information about this OS's father's death, his leadership ceased (a social sign).

4. A Chief and a Second Engineer (Ukrainians) were on a ship belonging to a shipowner from Germany. Being a German, the Third Engineer was an informal leader performing linking and coordination functions between the ship and the Company concerning all technical, repair and ship's supply issues.

5. A Chief Mate (formal leader) with the help of two pumpmen was in charge of the work of hand chipping cargo tanks on the tanker carrier "IRAN BEHESHI". The deck crew fulfilled the work with a boatswain in charge who, in the absence of Chief Mate, took responsibilities of the informal leader having deviated from the coordinated operation of tanks chipping. Having measured the tank's gas contamination, the boatswain was incompetent to assess the results correctly and sent 2 people into the tank who fainted there due to being poisoned by oil vapour. Lacking experience and skills, the boatswain (an informal leader) was at a loss in such an emergency and did not ask for assistance through VHF. Without informing anyone he himself descended into the tank after taking off a VHF station, a helmet and boots. When the pumpman noticed that the boatswain was missing on the deck near the tank he came up, looked inside and saw the boatswain and sailors lying unconscious. The pumpman called the Bridge through VHF and informed them about the situation. The General emergency alarm was soundeded. The three injured people were taken out of the tank and sent to the hospital in Montevideo.

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