

Safety culture and the human element

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Introduction

The shipping industry is run by people and for the people. While these people vary in all sorts of ways, they are all, nevertheless, people – with the same basic set of capabilities and vulnerabilities. But people are not simply an element like the weather they are at the very centre of the shipping enterprise. What is the secret of its successes and the victims of its failures?

It's the human element that drives what happens every day at work – from the routine tasks of a ship's rating, right through to the policy decisions of the IMO. Fortunately, there is a lot that is known about human nature – and a lot of practical things that can be done to ensure people play to their strengths – while avoiding the pitfalls.

Maritime businesses should understand the complex and often subtle interaction between all these factors. Human behavior needs to be managed at all levels, ranging from ordinary seafarers to regulators developing national and international regulations. It is these policies and strategies that govern how ships and their crews operate, how safely they operate and lead to success.

Management and leadership are often thought of as the same thing. Although it is true that the most effective manager will almost certainly be an effective leader and that leading essential function of managers, there is more to managing than just leading. However all the managerial functions as well and more so accomplish little if managers do not know how to lead people and to understand the human factor in their operations in such a way as to produce desired results.

Developing safety culture with the effective and correct application of human factors plays a vital role in the implementation of health, safety and environmental protection policies. Safety culture as defined by A.R. Hale states as *“The attitudes, beliefs and perceptions shared by natural groups as defining norms and values, which determine how they act and react in relation to risks and risk control systems.”*

For all practical purposes and to comply with the requirements of the ISM Code, the HSEQ personnel in a Company are entrusted with the task and responsibility to develop and monitor the safety culture.

Given the fact that the companies develop procedures, work schedules and safety standards with the implicit assumption that people are essentially alike, in the process of implementation of systems and developing safety culture HSEQ personnel should acknowledge and understand that individuals are unique - they have different needs, different ambitions, different attitudes and different levels of knowledge and skills. This gap between individual skills and attitudes can be narrowed by encouraging and developing a safety culture.

The ISM Code required companies to implement and maintain its Safety and Environmental Policy. The responsibility of implementing this policy is the top management and the Designated

Person. The Designated person as per ISM Code section 4.0 is responsible to monitor the safety management system and all relevant systems.

“To ensure the safe operation of each ship and to provide a link between the Company and those on board, every Company, as appropriate, should designate a person or persons 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 ensuring that adequate resources and shore-based support are applied, as required.”

Therefore the objectives of the ISM Code to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment could be achieved by developing a good safety culture. HSEQ team supports and guides the shipboard team through effective communication and at the same time to ensure that the decision making stays in the hands of the Master and Crew. It is vital to acknowledge this worrying shift of decision making from the bridge and control room of the vessels to the respective shore-based management office.

Looking closely at the concept of safety culture Professor James Reason states that safety culture has four key components which include:

- ✓ Informed culture
- ✓ Reporting culture
- ✓ Just culture
- ✓ Flexible culture
- ✓ Learning culture

In general the HSEQ team is required to manage and operate the systems and have current knowledge about the human, technical, organizational and environmental factors that determine the safety of the system. As a whole it involves creating a safety information system that collects, analyses, and disseminates information from incidents and near-misses, as well as regular proactive checks on the system's vital signs, which fits into the **informed culture** component of safety culture.

Since the ship operations can only be remotely monitored by the shore management it makes it important that there is mutual trust and respect between the ship and shore teams. The ship's personnel are required to be open in reporting any errors and near misses and thus promoting the **reporting culture** element applicable to ship's Officers and crew. It includes an organizational climate in which people are prepared to report their errors and near misses. Safety depends crucially on the willing participation of the workforce - the people in direct contact with the hazards.

However it is normal for us to make mistakes. It is also clear that wider organisational factors play a huge part in helping to create our behaviour – including our mistakes. These twin realisations have allowed a new approach to safety management to emerge in recent years. The

key insight has hinged on the need for safety critical organisations to shift from a blame culture to a **just culture**. This element of safety culture is applicable for both ship and shore personnel. An effective reporting culture depends, in turn, on how the organization handles blame and punishment. A blanket **NO-BLAME** culture is neither feasible nor desirable. Rather, what is needed is an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information.

aa) Effective Communication

As per ISM Code clause 6.7 *“The company should ensure that the ship’s personnel are able to communicate effectively in the execution of their duties related to the safety management system.”*

The important part in effective communication especially in the Maritime environment is what Peter Drucker said *“The important thing in communication is to hear what isn’t being said.”* This is very much applicable in the ship management where shore managers do virtual management and tend to make decisions based on information available via emails or phone calls, conversation etc. The diverse culture which currently prevails in this industry brings a barrier to communication through cultural difference.

The Human Element is widely accepted as the greatest source of operational risk to modern ships and the current challenges are:

- 1. Miscommunication**
- 2. Diversity – religion/gender**

Managing diversity on teams is a balancing act. Diversity typically provides fresh perspectives on issues. Considering that ship and shore teams are multi cultural and multi ethnic in nature, it is important that senior managers including HSEQ personnel are sensitive to such issues, as studies have revealed that cohesiveness is lower in teams of diverse background.

Also communicating in a diverse background brings in challenges related etiquettes and of same language applied in different regions .A slogan by Exxon saying **“put a Tiger in your tank”** proved to be very effective in the United States, yet it is an insult to the people in Thailand. Even colors have different meaning in various cultures - black often associated with death in many Western Countries, while in the Far East white is the color of mourning.

Today 85 to 95% of the world’s seafarers are working in a multi cultural environment making cultural awareness or diversity management a primary task and yet very little is done to address this problem. Sensitivity towards issues such as seafarers hailing from a certain region who value personal relationships and family-like environment on board.

In certain cultures individuals may feel uncomfortable giving opinion. Also its seen that in many cases the instructions given by the Master are not clearly understood but due to cultural barriers they may feel embarrassed to admit or ask for repeating.

With the advent of email and modern communication an information overload is being experienced in all aspects of business including shipping. We must appreciate the fact that individuals have finite capacity for processing data. When the information we have to work with exceeds our processing capacity it is called information overload. The demands of keeping up with e-mail, phone calls, faxes, meetings and professional reading create an onslaught of data that is nearly impossible to process and assimilate. Individuals tend to select, ignore, pass over or forget information. Regardless, the result is lost information and less effective communication.

bb) Making decisions with a risk based approach

Decision making occurs as a reaction to a problem. There is a discrepancy between some current state of affairs and some desired state, requiring consideration of alternative courses of action. The decision making process in shipboard operations is influenced by safety culture which prevails within the organization.

HSEQ personnel require to be experienced and trained for the job and have understanding of risks involved in shipboard operations as this will help in making quality decisions. The perception, comprehension and projection of the situation is very important. Good decision making will depend on the one's ability to get the all the relevant information from the given situation – the ability and competence of a person to be able to integrate relevant information in order to form a coherent picture of what is going on around us.

There is need to balance between efficiency and thoroughness and trade off between available information and time. Efficiency increases when people spend less time and effort in thinking, and more time and effort in acting. When this balance is reversed, thoroughness increases at the expense of efficiency. In an organization with a good safety culture thoroughness will be favored by decision makers.

At times managerial pressures on ship's crew are frequently inferred by those tasked with achieving a goal as requiring corner cutting to achieve the quickest and most economical decisions. In practice, most organisations are conscious of safety and profitable. Simply stated, the problem is that every decision made is always a compromise.

The amount of unnecessary risk – either to profits or to safety – signified by a particular decision depends on the extent to which the decision maker is accurately aware of the real and just perceived risks they are dealing with and adoption of good risk management practices shall help in making informed decisions.

cc) Leadership

Over the centuries shipmasters have been an example of individuals with considerable power. In recent years companies are moving away from command and control hierarchical structure towards a flatter, inclusive and empowered format as senior managers and leaders have come to realize that individuals alone cannot create an environment in which sustainable group

excellence can be expected. This shift away from traditional command and control structure does pose challenges for seafarers and shipping industry. Therefore we need to find the balance between Master's competence and authority and HSEQ team given role and responsibility. The leadership style which is developed and adhered to must appreciate the provisions of the ISM code and especially with respect to Master's overriding authority.

The second aspect which one needs understand is that it has been over a decade since the ISM code has been introduced and many organizations now have a well developed and established safety management system. HSEQ personnel at this stage need to have a cautious approach keeping in mind that just because a team is performing well at a given point of time is no assurance that it will continue to do so. An effective team can become stagnant unless proper leadership is provided.

Initial enthusiasm and familiarity breeds apathy. Effective leadership can be applied by (a) Preparing team members to deal with such problems (b) Refresher Training Programs and advanced training programs.

Conclusion

In conclusion, any HSEQ team needs to have a pro-active approach in developing and establishing a safety culture within the organization. It is worth mentioning that despite of comprehensive regulations, ever evolving training many accidents still occur. Although in some cases the root cause of the accident is equipment failure through poor design; however in majority of the cases the accident is attributable to operational failures arising from the fallibilities we suffer – the Human element. Therefore a clear understanding about various factors of human elements shall help in achieving company's goals and objectives in reducing accidents.