

WHAT ROLE DOES 'ORGANISATIONAL CULTURE' PLAY IN REDUCING THE RISKS OF CRISES OR DISASTERS?

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Introduction

Organisational culture is a complex concept, often simplistically summarised, partly because it is a common-sense term. We are all familiar with the idea of culture and instinctively know its meaning, usually based on our own experiences.

Organisational culture is often quoted as a key factor in the success or failure of organisations and has become a popular topic both within the academic and business environments. Kennedy, one of the authors of the 1982 'Corporate Cultures' book, reported that after its publication he was often approached by managers asking for an organisational culture that would produce superior performance. This desire is consistent with the view that one common culture is generally displayed throughout an organisation and with the belief that this common culture can be driven from the top and imposed on the organisation, its managers able to manipulate and control it, to achieve their strategic goals.

But this is a very optimistic view. A study of organisational change involving six large corporations concluded that company-wide change programs, attempting to change a company culture and driven from the top, fail. Successful change programs start at a local level and are led by local leaders. Culture is not a way to manipulate and control an organisation. Culture is built from the bottom up, created by members of a group - not imposed, not uniform across the entire organisation, but a composite of the sub-cultures existing within the organisation.

There is a relationship between organisational culture and safety culture: organisations with 'strong' cultures (and consequent organisational success) display characteristics similar to those with 'good' safety cultures which, if implemented, can avoid or reduce the risk of organisational failure.

In 1997 James Reason provided a useful model to analyse a safety culture. He mentioned how reporting must be in place, comprising data on faults, errors and near-misses; that employees must be encouraged to provide

safety-related information and clear, known, boundaries between acceptable and unacceptable behaviour must be provided; also, the organisation must be flexible, able to change from a hierarchical to a decentralised structure when needs arise; and it must be able to learn, absorb information and implement change. When this model, combined with the needed support from the top, is used to analyse the Deepwater Horizon (DWH) crisis, there is confirmation that lack of safety culture contributes to increasing the risks of crises and disasters.

Deepwater Horizon (DWH)

The DWH rig was a semisubmersible exploration drilling rig in the Gulf of Mexico, owned by offshore drilling contractors Transocean and leased by BP, preparing to temporarily abandon the Macondo well. On 20th April 2010, the crew were preparing for the well completion, the final operation before abandoning the site to allow production at a later date. Earlier, the pipe casing that ran into the well to prevent oil and gas from flowing up the drill hole, had been cemented in place. Operations prior to disconnecting the well had started when a

surge of natural gas blasted through the concrete core, reached the platform, then the engine room, where it ignited, causing an explosion which killed 11 workers and injured 17. Two days later the rig capsized and sank and oil started spilling into the Gulf at a rate of 60,000 barrel per day.

Operations at the exploration rig were complex and involved BP as well as several contractors. BP as the primary owner of the risk, was however primarily responsible for safety.

BP's (lack of) safety culture

The reporting culture within BP, and between BP and the contractors, was marred by inadequate communication, with silo decision making, often based on incomplete information, and a reluctance to consult with experts. No policies existed requiring the need for second opinions, or consultations, when employees were faced with unexpected test results, or when they needed help. BP concentrated on occupational, or personal, safety, not on process safety (the procedures focussed on preventing catastrophic accidents and minimising safety risk). Process safety information was not proactively addressed, with issues such as lack of equipment testing and maintenance, poor standard operating procedures, and lack of training ignored, indicating an ineffective risk management processes.

The line between acceptable and unacceptable behaviour was blurred, and compliance with rules and procedures, and safe operating practices, were not the norm. Alarms and critical safety systems were not functioning or had been inhibited prior to the explosion due to false alarms. An atmosphere of trust lacked on DWH, in an employee survey carried shortly before the blowout, around 46% of employees felt that there would be consequences for reporting unsafe situations which would have meant a reluctance to speak out on safety issues.

BP did not display organisational flexibility, meaning that it was not able to adapt to emergency situations, and delegate decisions to those with the expertise. Personnel on the rig were inadequately trained, they had not been provided with detailed guidelines on how to perform and interpret procedures such as negative pressure tests, or how to monitor the well for kick activities during temporary close-out operations. There had been no adequate training for emergency situations. The lack of preparation set the employees up for failure and resulted in delayed decisions and response confusion, for example the general alarm was not manually triggered even after several gas alarms started sounding throughout the rig. While the crisis was developing, key decisions were delayed, as the crew waited for instructions, and vital information was not passed on: the workers in the engine control room were not immediately informed of the scale of the situation. When they became aware of it, the engine control room was not shut down, awaiting instructions from the bridge. The evacuation was chaotic, with

lifeboats leaving half empty, and the inflatable raft used as a last resource snagged its rope during launch and no knife could be found to free it.

There were no processes in place to enable organisational learning from internal accidents and near-misses, and from external crises and disasters. In 1988, Piper Alpha, a UK oil production platform exploded, resulting in 167 casualties. Eight months prior to the DWH explosion, a blowout of the Montara well, offshore Australia, occurred. There are many parallels between these two events and the DWH's explosion, BP missed good learning opportunities from these external disasters. BP also missed good learning opportunities from internal accidents: between 2005 and 2009 four major accidents occurred causing death and injuries as well as environmental damage. After the first accident, an explosion at the Texas City BP's refinery, the US Chemical Safety Board recommended that BP commission an independent body to evaluate and feedback on the effectiveness of BP's safety culture. The report found that BP did not have effective leadership on process safety, that there was not a positive, trusting and open environment, that communications between management and workforce were ineffective, and there was an inability to identify risks due to poor levels of hazard awareness. All this resulted in lack of early warning for potential problems. Implementing the report's recommendations would have needed a fundamental culture change, requiring considerable time and resources. Needless to say before any material changes could be implemented the DWH crisis occurred, proving that BP had not yet been able to learn from past experiences.

Attitudes towards safety are set from the top. Without CEO and senior management support, resources will not be dedicated to safety and it is unlikely that an organisation will succeed in implementing a safety culture. An analysis of 19 speeches made by the BP's CEO before the DWH disaster, including the AGM speech delivered a few days earlier, concluded that the CEO set the focus on achieving financially, reducing costs, and increasing capital efficiency. Mentions of safety as a first priority seemed disingenuous, as explanations of how safety would be achieved despite cost cutting and economic efficiency were not offered. BP's culture was one of cost cutting and risk taking.

Once the crisis evolved into a disaster BP continued to display elements of poor safety culture. BP downplayed the extent of the damage it caused, with the spill described as 'tiny' and its environmental impact 'very modest'. BP attributed blame to two of the rig supervisors and to other companies involved in the exploration of the Macondo well, and concentrated only on the technical causes of the disaster, without a mention to organisational and safety issues. This is understandable, given the hefty fines and penalties at stake - in 2016 costs amounted to approximately \$62b - but is demonstration of a culture unbalanced between safety and economic efficiency.

Conclusion

Applying Reason's model shows that BP's culture contributed to the DWH crisis and disaster. BP did not have a just culture, it was not a flexible organisation, its people were not empowered to make decisions and were unable to trust procedures and equipment which contributed to a lack of preparedness. BP was not set up to report and act on process safety, with consequential poor organisational learning. Lack of senior management support contributed to BP's poor safety culture: the message from senior management underlined the importance of cost savings and economic efficiency, resulting in decisions driven by costs, not safety. The necessary balance between economic efficiency and effective safety culture was not achieved: resulting in the DWH crisis and disaster.

The same contributing factor can be found for many other crises and disasters and, unless organisations are able to achieve a good safety culture, will be found in future ones.

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