

Planning for risk management research paper

[Business](#), [Management](#)



In business and project ventures of any kind, risk is a constant – an unkillable phantom that seeks to strike down any and all projects that one is working on. No matter how much of a sure thing it may seem to be, there is always a risk that is seeking to completely derail one's hard work. There is, however, a solution that can help minimize the chance of something going wrong, thus saving investors incredible amounts of money in potential foibles that can delay or halt the progress of a project – that solution is risk management.

Risk management is one of the most important things one can do in business, as it will give some measure of control over what is being done. Despite a project manager's best efforts, they cannot prevent a catastrophic event from occurring if it chooses to do so: however, they can take whatever steps are necessary to cut off whatever avenues this risk has of presenting itself. The fewer mistakes they make and the more redundancies they have, the better off they will be. Risk management is the process by which these redundancies and safety plans are anticipated, created and implemented. In this paper, we will examine the varying kinds of risk management process that exist, as well as what industries and purposes they are most commonly used in and why.

Firstly, we will start with fatigue risk management systems (FRMS), which is a system that is completely necessary when one manages a project or facility that requires a great number of workers and long hours. FRMS is utilized primarily, as the name implies, to lower and diminish worker fatigue, as productivity and safety diminish substantially the longer someone works. This is particularly true in high-risk professions such as the manufacturing sectors. In today's modern world, work environments have become so

shorthanded that fatigue happens more often and more quickly, and as a result accidents can occur. (Gander et al., 2011, 574) Therefore, more adequate implementation of FRMS is needed, as factors that contribute towards worker fatigue (lack of breaks, increased responsibilities) are addressed and curtailed.

In order for risk management to occur, risk assessment must be completed first. Risk assessment is the step in which the potential risks and failures that could possibly occur in whatever environment one is applying it to are determined. After risk assessment, one will be able to know the actual risks that need to be managed. The chemical process industry, in particular, is a dangerous profession and area in which risk assessment is especially vital. In a study of one of the Hindustan Petroleum Corporation Limited petroleum refineries, the authors examined their risk assessment strategies, showcasing how they went about making their environment safer and less prone to accidents. (Wasewar and Kumar, 2010, p. 20) They would assess the potential chemicals that would be released if a container or something in storage were to open unexpectedly, as well as the overall effects of that risk, depending on the chemical. The situation in which the chemical is released into the plant is known as 'failure mode,' and outcome scenarios are devised for each release source. The dispersion of the chemical is then analyzed, as well as how likely this dispersion is to occur. (Wasewar and Kumar, 2010, p. 22) Through these assessments, they can see just how bad it can possibly get, and as a result will have a baseline with which to work towards managing said risk.

Risk management has its biggest and most prominent uses in projects, including construction. For example, the projects that were undertaken to provide substantial improvements to South Africa in time for the 2010 World Cup were prime candidates for hardcore risk management, as there were a variety of unique challenges that needed to be undertaken in order to succeed. (Chihuri and Pretorius, 2011, p. 64) Some of these projects included creating new stadia and maintaining the ones that existed, as well as upgrading the transportation system, including roads and airports, in order to accommodate all of the new tourists and spectators coming into the country to see the World Cup.

There is a specific process to project risk management (PRM) which must be followed to the letter in order to prevent any failure in communication. First, as previously mentioned, there is risk assessment to figure out the various problems that will be encountered as a result of the environment and the nature of the job. In the case of the South Africa projects, there were various major risks to encounter, such as escalating costs (due to the high-profile nature of the World Cup driving prices up), power shortages (due to the overall weakness of the South African power grid), skills shortages (higher costs due to lack of skilled workers), and so on. The project risk management method is then applied, which includes: identifying risks, analyzing risks, evaluating risks, resolving risks, and monitoring and reviewing risks (Chihuri and Pretorius, 2010, 66).

Once the risks are indentified, they must be analyzed. Every risk is estimated to have a particular magnitude, or degree at which they will impact the entire process. This degree must be estimated, and then evaluated to figure

out how significant the risk will be. Then, steps will be taken to address the conditions that bring about the risk, which will hopefully diminish or resolve the risks. Finally, the risk is monitored and reviewed, allowing the project manager to know if there are any contingencies they had not planned for and to prepare accordingly. (Chihuri and Pretorius, 2010, 67)

There are several factors that can get in the way of successful risk management. Sometimes, the benefits of risk management are not appreciated, leading to them not being carried out. Often, there is not enough time to do the risk management, or it is perceived to be too costly. Finally, there might just not be people working on the project who know enough about risk management to do it properly. (Chihuri and Pretorius, 2010, pp. 74-75)

There are instances in which risk management needs to be performed in an aggressive manner. Luckily, there are risk management strategies that can be performed in this instance that have been proven to work well. Often, there are companies who will minimize risk by forcing or tricking contractors and architects to work together on projects, leaving more minds to come up with solutions. Alternatively, putting new products through quick tests in order to guarantee certification is the best way to take on a little risk in the short term in order to prevent a bigger risk in the long term. (Carrison, 2010, pp. 44-46) This sort of strategy applies to risk management in non-project or corporate contexts as well – stock investors and the like often use times of slow market growth to test out their risk tolerance, i. e. the amount of time they will wait out a big downturn in market price before pulling out. With the

proper risk tolerance (taking a little risk in order to pay off big), an investor may have to wait for the market to get back up. (Futrelle, 2011)

In essence, risk management is an incredibly vital resource for anyone participating in any type of business transaction or undertaking. Whether one is attempting to start a high-risk project, run a facility for the long term, or simply working on a stock portfolio, there are a number of types of risk management to consider. They all follow a basic formula of risk assessment and analysis, which leads to risk management as the solutions are determined, followed by a review period where one sees whether the risk management is working. As long as one follows that basic formula and follow it up with strategies that are specific to a particular undertaking, they are certain to have the best chance of success.

References

CARRISON, D. (2010). LEARNING RISK MANAGEMENT FROM

ENGINEERS. Industrial

Engineer: IE, 42(10), 42-46. Retrieved from EBSCOhost.

Chihuri, S. S., & Pretorius, L. L. (2010). MANAGING RISK FOR SUCCESS IN A SOUTH

AFRICAN ENGINEERING AND CONSTRUCTION PROJECT ENVIRONMENT. South African Journal of Industrial Engineering, 21(2), 63-77. Retrieved from EBSCOhost.

FUTRELLE, D. (2011). How Well Do You Know Risk?. Money, 40(1), 132-135. Retrieved from EBSCOhost.

Gander, P., Hartley, L., Powell, D., Cabon, P., Hitchcock, E., Mills, A., & Popkin, S. (2011).

Fatigue risk management: Organizational factors at the regulatory and industry/company level. *Accident Analysis & Prevention*, 43(2), 573-590. doi: 10.1016/j.aap.2009.11.007

Wasewar, K., & Kumar, M. (2010). Quantitative Risk Assessment (QRA) of a Petroleum

Refinery. *IUP Journal of Chemistry*, 3(4), 19-34. Retrieved from EBSCOhost.