

# Chapter 36

## Continuous Improvement Relationship to Risk Management: The Relationship Between Them

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### **ABSTRACT**

*In order for a company to economically survive, it needs to compete with a highly competitive market. The world is changing fast, adding different types of risks to companies. So, companies need to not only meet requirements but also exceed them. At the same time, companies are required to lower the level of risks they may encounter. As a result, continuous improvement and risk management should be key factors to insure company success. This study explores the relationship between the two concepts and gives examples where the interconnections between them exist. Also, the study explains the important key components of continuous improvement and the classifications of risk management. Finally, this article focuses on three aspects, managing complaints, developing strategy, and creating a suitable culture. These aspects are evaluated based on the relationship between continuous improvement and risk management.*

### **1. INTRODUCTION**

Continuous improvement and risk management are widely used by companies to improve their products or services compared to competitors. In addition, these concepts focus on eliminating the wastes and lowering prices to meet customer needs (Avanesov, 2009).

In the past few decades, the concept of continuous improvement was a common method to improve the quality of an organization. At that time, Deming was the most influential person to the quality world. Deming established 14 principles for improving quality. The fifth principle stated that improvement should be constant and forever (Galli & Kaviani, 2017). Another idea was introduced by Juran, who initiated the trilogy concept relating to a quality plan. Its main focus was on improvement and controlling

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a continuous loop. Toyota system and ISO 9000 initiated two more ideas. For companies to economically survive, ISO certification is required where this certification becomes a main requirement for such companies to run their work. ISO 900-2015 supports the notion of continuous improvement (Galli & Kaviani, 2017). It focuses on continuous improvement and mentioned the idea of PDCA, standing for plan, do, check, and act for process. Quality-oriented programs such as Lean Six Sigma, Total Quality Management, and Kaizen are used to meet the customer requirement and make them satisfied about the services or products (Choi et al., 2016).

On the other hand, in 1994, risk management for any project was defined as an organized process to identify, analyze, and respond to different classes of risks (Galli & Kaviani, 2017). But a recent study in 2013 (Filho & Uzosoy, 2013), categorized risk management into six critical steps. They are: plan, identify, perform qualitative analysis, perform quantitative analysis, response, and monitor and control (Avanesov, 2009).

In literature, the classes of risks for one study (Galli et al., 2017) are classified in term of risk related to politics, construction, operation and maintenance, contracts and policies, financial issues, and force decisions. In another study, the classifications are different, in three levels (Raval et al., 2010). The first level is high risk, which involves political, and government risks macroeconomic risks, legal risks, social risks, and natural risks (Raval et al., 2010). The second level is medium level risks which involves project selection risks, financial risks, residual value risks, design risks, construction risks, and operation risks. The third level is low risk level, which involves internal risks and 3<sup>rd</sup> party relationship risks.

Risk management aims to maximize and enhance the probability of getting positive events and to minimize and eliminate the probability of getting negative events. As a result, a successful project has the ability to manage these risks effectively. The literature has mentioned that the identification step in risk management is a critical step because after identifying the risk, the risk could be properly managed. In addition, if the risks are identified in the early stage, the cost and time related to the risk would be reduced (Choi et al., 2016).

Overall, by looking to the studies, we conclude there is no perfect approach that leads to successfully handle risks. There is a need to have a standard classification and definition of risk management for all kind of projects from small to large.

The objective of this research paper is to explore the relationship between continuous improvement and risk management (Raval et al., 2010). The approach is structured in three aspects. Firstly, technical complaint management is discussed in term of its main targets and structure. The second aspect is how to create a culture that leads to a continuous improvement. The last aspect that will be explained is how to implement a development strategy to support the notion of Continuous improvement to get high quality products and service.

The primary contribution of this paper is to find the gaps in implementing continuous improvement by taking into account risk management principles (Raval et al., 2010). Firms usually improve their quality of products or services by implementing change for the better, a continuous improvement concept. This paper will evaluate and prove that the lack of relationship between continuous improvement and risk management is a high concern to firm growth. Results of this study may contribute in management aspects, culture aspects, and strategic improvement aspects.

All recent research focused on either continuous improvement or risk management and there is no literature combining both or applying them simultaneously (Raval et al., 2010). This study will examine the relationship between the two and discover the hidden issues which should be considered as a major effect to organizations and/or firm growth.

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