Chapter 6
An Analysis on Risk Management and Risk in the Software Projects

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ABSTRACT

Controlling risk in software project is considered to be a major contributor for a project success. This chapter reconsiders the status of risk and its management in the science and literature. The survey is supported by the recent study of risk practices in government agencies in India, thereby contributing to a gap in research in the public sector. After the study, it is found that the risk is barely been conceived in research. The findings which were found are considered to be a challenging situation for risk management and to project management. Further, it was noticed that software projects do not follow a uniform structure which introduces variations in the risk and projects. Risk management research is not efficient in terms of practice. Directions and implication for the research and practice are discussed in this chapter.

INTRODUCTION

Software projects are considered to be one of the high-risk activities which generates different outcomes of different performance (Charette et al., 2005) According to the survey, it was found from the report of the industry that only quarter of the software projects are successful and rest around billions of dollars are lost annually some due to the project failure or result failure. The commitment of the risk management to the commercial software industry is that it will make the quality of the software
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product best and delivery on time. Risk management can give benefits to wide range of projects and organization by:

1. Identification of favorable alternative course of action
2. Higher success rate
3. Cost efficient
4. Higher efficiency rate

This chapter makes two contributions, first is on review, analysis on software project risk, risk management and second on the experimental study of risk management practices which is being assessed against the prescriptions in literature. After the thorough analysis, result and conclusion can be drawn for the future research work.

The chapter consists of the following contents: literature; findings; comparison on the practices which are prescribed; limitations; future research work and conclusion.

LITERATURE REVIEW

In this section there is a study of the importance of risk and risk management, limitations in the risk, concept of risk in the project and finally the limitation are being discussed in comparison based on the practice.

Risk

In software projects the term risk is being defined as exposure to specific factors that present a threat in achieving the expected outcomes of any project (Grady et al., 1987). Risk is an uncertain event that occurs if measures are not taken. The result of improper management of risk will lead to failure of the product, loss of the efficiency in the result and so on. One of the limitations of risk is that it is considered very difficult to estimate the impact of probability of risk factors on the software projects which are designed (Fairbanks et al., 2010). The problem to this limitation can be solved by having different variation of probable outcomes rather than depending on one particular probability result.

Why are risk and risk management are considered to be important?

Risk plays an important role for developing any software. Risk management is the steps taken while developing software so that the risk is minimized. Project risk management is a formal notation to manage identifiable risk factors which identifies and respond to the risk of the project throughout (Juarez et al., 2012). It has three four phases namely risk identification, risk assessment, and prioritization, risk response planning i.e. management and documentation and learning.
Risk Based Contingency in Project Cost Estimates
[www.igi-global.com/chapter/risk-based-contingency-in-project-cost-estimates/172638?camid=4v1a](www.igi-global.com/chapter/risk-based-contingency-in-project-cost-estimates/172638?camid=4v1a)

Addressing Financial Risks and Uncertainties Through Financial Literacy Education: Recommendations, Resources, and Results
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