
4 Risk Management and Agile Project Management

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Learning outcomes

By completing this chapter, the reader will be able to discuss the following:

- Risk management system from Traditional Project Management (TPM) perspective.
- The principles of Agile Project Management (APM).
- Compare and contrast TPM tools and techniques with the APM approach, tools and techniques in the context of event management.
- How APM can enhance risk management in events.

Introduction

The previous chapter explicated the components of the project plan from the traditional project management (TPM) standpoint. In this chapter we explore the risk management system while linking this to the concept of Agile in managing projects. The rationale rests on the bedrock of project success which is directly proportional to the effectiveness of the risk management system. The higher the uncertainty about the event scope, the more likely the management team will face a real challenge trying to develop an effective risk management system following the TPM approach. The first part of this chapter explicates the main components of the risk management system from TPM perspective. The basic concepts of Agile Project Management (APM) are then presented and discussed in the context of event management. The chapter wraps up with some useful projections justifying the claims that APM tools and techniques can be utilized to proactively manage risk in the context of event thus enhancing the overall success of the event.

Event risk management systems

Effective risk management requires sufficient knowledge about the project's scope, objectives and environment, and the performing organisation. It is therefore best performed either by the project team, or by a dedicated risk management team directed by the event manager. The objective of the risk management process is to seek answers to the following questions and develop a suitable strategy for dealing with the risks identified:

- ◆ What are the risks and where do they come from?
- ◆ What is likely to happen should the risk occur?
- ◆ What is the probability of the risk occurring?
- ◆ What are the consequences of the risk occurring?
- ◆ What are the signs that the risk is going to occur?

The risk management plan generally consists of the output of the following six sequential stages as shown in Figure 4.1.

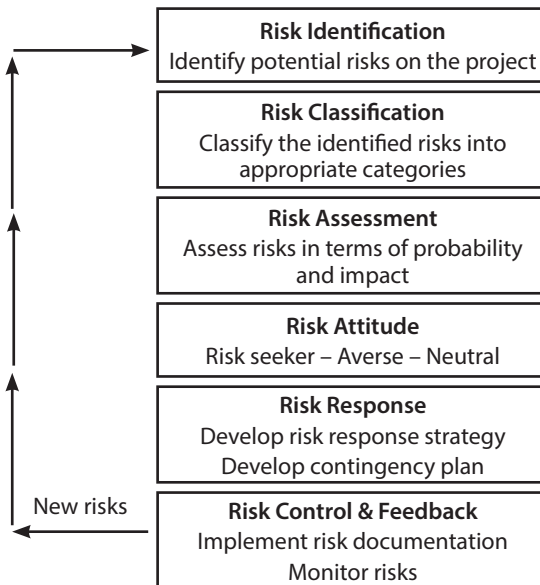


Figure 4.1: The risk management system

Risk identification

The first stage of the risk management process involves generating a list all the possible risk events that could have an adverse affect on the project. The most efficient method to risk identification is to conduct a brainstorming session, as described in the risk management clinic. However, complementary methods include:

- ◆ **Lessons learned:** Historical documentation on similar projects will identify the majority of highly probable risks.
- ◆ **Delphi technique:** This involves reaching a census by asking a panel of carefully selected experts, specific questions regarding possible risks on the project.
- ◆ **Interviewing:** Experienced project managers, stakeholders and experts are a great source of knowledge for identifying risks.
- ◆ **SWOT:** A common practice of examining risks through the strengths, weaknesses and opportunities and threats within the project.
- ◆ **Risk Breakdown Structure (RBS):** Typically derived from the work breakdown structure (WBS) whereby each activity can be analysed in attempt to answer the question: “what may go wrong?”. Rolling up, integrated risk scenarios can be developed. This technique can be embraced by any of the above-mentioned methods.

A risk event should be defined in two parts. The first part should identify the source of the risk, for example ‘unstable supply network’. The second part should identify the consequence of the risk, for example, ‘failing to meet the project schedule’. Hence the team may identify the risk as: ‘Instability of the local supply network results in the delayed supplier delivery and failure to meet the project schedule’. This provides a clear definition of the risk and identification of the root cause of the problem. Without identification of the risk source an effective risk response cannot be developed.

Risk classification

Complementary to risk identification is the creation of categories for the classification of risks. It is sometimes a good practice to develop specific risk categories even prior or concurrently with the risk identification process.

Risk categories

Types of risk include strategic risk, project risk, financial risk, market risk. *Strategic risk* is different from project risk in both context and management approach. *Financial risk* is dynamic in nature whereas risk of theft, fire and other accidents is typically static. *Market risk* is an example of external risk compared to operational risk that is more likely to be internal. Another approach to categorise risk can follow the categories listed below:

- ◆ **Technical risks:** A common risk is the dependency on technology. But, these risks transcend the technology related glitches to include all technical related issues. Technical failure has an impact on the performance and reliability of the project, and on its quality. Risks in this category include project requirements, interfaces and levels of complexity.

- ◆ **External risks:** These are normally outside the direct control of the project manager. They include meeting regulations, government interventions, changes in the political environment, changes in market conditions and exposure to subcontractor and supplier forces. COVID19 is a typical example of external risk.
- ◆ **Organisational risks:** Events could be vulnerable to issues within the performing organisation. Priorities may change, funding may not be available and dependent projects may not be completed on time.
- ◆ **Project management risks:** These are the ultimate responsibility of the event manager and include exposure to human error, poor quality plans, suboptimal schedules and inaccurate estimates.
- ◆ **Health and safety risks:** It is the responsibility of the project manager to ensure that all personnel working on the project do so in a safe environment. In many countries health and safety is covered by legislation and failure to act accordingly can result in prosecution.

Risk categories can also be presented in highest high level of a Risk Break-down Structure (RBS). Using the same principles as a WBS, the RBS ensures a comprehensive process of systematically identifying risk in a consistent manner, and contributes to the effectiveness of risk identification.

Risk assessment

Not all risks identified within the process require the same level of attention. Some risks may be trivial and pose little threat to the project, whilst others could have severe consequences. The project manager therefore needs to determine which risks require constant monitoring and which can be ignored. The next stage in the risk management process involves prioritising each risk according to the severity of the threat to project success. The significance of a risk is assessed on two dimensions: probability and impact.

- ◆ **Probability** refers to the likelihood that a specific risk will occur. For a risk to be of concern there must be a probability that it will take place. For example, an alien spaceship abducting the entire team during the final phases of the project may have an impact on its success, but the likelihood of this happening is very low. Conversely, the probability of weather conditions affecting an outdoor event in Toronto during the winter months is relatively high. In many cases probability can be assessed using expert judgement or historical information. Available data, such as climate and national statistics are also invaluable.
- ◆ **Impact** refers to the consequence of the risk occurring on project success. This should be assessed against each of the project objectives: time, cost, quality and scope.