

Project Manager Risk Management Outline

What is a Risk?

Risk is uncertainty that matters. To elaborate, risk is an uncertain event or condition that, if it occurs, will have a positive or negative effect on a project objective. The primary areas that could be impacted by a risk are project schedule, budget, scope, and quality. Additional items that may be impacted include environmental consequences, health and safety exposure, or the public's perception of the project.

Key takeaways:

- Uncertain event – an event that may or may not happen
- Positive or negative – risk can be opportunities or threats to a project
- Requires a proactive approach
 - If it's happened – it's an issue (reactive)
 - If it hasn't happened – it's a risk (proactive)
- Areas impacted by risk – project scope, schedule, budget, quality

What is the Value of Managing Risks?

1. Risk Management is proactive instead of reactive project management. Failing to identify and manage risks can cause the risk to grow into larger, more significant and urgent problems that cause major delays or significant cost increases – which may have been avoidable or mitigated. In addition, failing to identify potential opportunities are likely to turn into missed innovations, cost savings, or time savings. How well the project plans for and reacts to risks can have a significant impact to the successful delivery of the project.
2. Risk management is not a one-size-fits-all process. It should be scaled to meet the needs of the project – most of the time the Risk Assessment Worksheet (RAW) identifying risks and responsible disciplines initiates frequent communication with team members & Stakeholders and is all you need. However, projects with higher risk potential – over \$100 million, constructability concerns, many external stakeholders, etc.- may require a separate Risk Assessment Study (RAS) organized and facilitated by the Value Management Office (VMO). In both cases the Projects Manager (PM) coordinates with the responsible parties (Units, Disciplines, stakeholders, etc.) for implementation for risks that affect their area of expertise.
3. Risks are inevitable - all projects have them. Overlooking risks makes the project team unprepared for them if they occur. However, early identification, acknowledgement, and continuous management of risks reduces impacts and improves project performance.
4. Continuous/effective risk management is a cornerstone of good project management. Transparency of project risks to project team members and Stakeholders can improve the ability to obtain additional resources and organizational support when risks do occur.

Risk Management Process

The PMBOK[®] Defines the risk management process as

“The systematic process of identifying, analyzing, and responding to project risk”

Continuous monitoring of risks increases the chances of avoidance and decrease impacts to schedule, budget, scope and quality. The Project Manager is responsible for ensuring communication is occurring between the project team members and any appropriate stakeholders. Open and honest communication is essential for managing and resolving risks.

Process Steps

1. Develop a Risk Management **Plan**
2. **Identify** risks
3. **Analyze** the probability and impact of risks
4. Develop **risk response strategies**
5. **Implementation Plan** for risk responses
6. Continuously **monitor and control** the risks throughout the life of the project

See Appendix A for Risk Assessment Process Flowchart

Step One (PLAN):

The initial scoping report is completed by Planning/Scoping Unit, which provides project specific requirements and needs of a new project. PM and VMO will review the existing planning/scoping report and determine next steps, which includes the PM completing the initial Risk identification in the RAW. Based on the preliminary discussion, VMO may recommend that a Risk Assessment Study (**RAS**) be conducted.

Tools:

- Scoping/Planning Report
- Risk Assessment Worksheet (RAW) – See Appendix B for Sample

Step Two (IDENTIFY):

The Project Manager (PM) shall identify risks in the Risk Assessment Worksheet (**RAW**) before completion of the 30% milestone. Identified risks are recorded initially on the RAW. If a RAS is recommended, then the RAW is used as a starting point to be built upon during the RAS.

Tools:

- Risk Assessment Worksheet (RAW) – See Appendix B for Sample
- RAS Document – Risk Register which will be customized to meet the project's needs

Step Three (ANALYZE):

The identified risks are analyzed by estimating the probability of occurrence and potential impact of the risks, which establishes a risk rating for each risk (Risk Rating = Probability x Impact). See Figure 1 below. Once the rating is established, the higher risk items are moved to the next steps for response and strategy.

This step is completed either by the PM on the RAW or during the RAS.

Figure 1: Example of Risk Rating, P & I Matrix

Probability	5	Highly Likely	5	10	15	20	25
	4	Likely	4	8	12	16	20
	3	Possible	3	6	9	12	15
	2	Unlikely	2	4	6	8	10
	1	Highly Unlikely	1	2	3	4	5
			Very Low	Low	Medium	High	Very High
			1	2	3	4	5
			Impact				

Tools:

- Risk Assessment Worksheet (RAW) – See Appendix B for Sample
- RAS Document – Risk Register which will be customized to meet the project’s needs

Step Four (RISK RESPONSE/STRATEGY):

A risk response strategy (Avoid, Mitigate or Accept) is then selected, and a risk response is developed, and the responsible party is identified (Unit, Discipline, stakeholder, PM, etc.). Once the response is established, an implementation plan is developed.

This step is completed either by the PM on the RAW or during the RAS.

Tools:

- Risk Assessment Worksheet (RAW) – See Appendix B for Sample
- RAS Document – Risk Register which will be customized to meet the project’s needs

Step Five (IMPLEMENTATION PLAN):

Implementation Plan is distributed by the PM to responsible parties for implementation.

Tools:

- Implementation Plan

Step Six (MONITOR AND CONTROL):

Risks should be routinely identified throughout the life cycle of the project with updates to the RAW and coordination with VMO as necessary. The PM should continually monitor the implementation plan and it is recommended that the PM discuss the status of risks at project meetings, including constructability reviews.

APPENDIX:

- A - Risk Assessment Process Flowchart
- B - Risk Assessment Worksheet (RAW)