

7.0 Risk Management

Every project entails some associated risk. There are five crucial activities associated with managing risks, which are:

- **Assessment** – Determining what risks exist for the project, the probability of the risk occurring and the impact on the project and/or organization if the risk occurs.
- **Analyzing** – Determining the risk mitigation strategy.
- **Triggers** -- Determining how to recognize when the risk becomes a reality.
- **Monitoring** – Continuous monitoring of the active risk list to determine if the impact and/or probability have changed or if the risk has become a reality.
- **Planning** – Creating contingency plans for those risks with major impact that are highly probable to occur. This includes a mitigation strategy and triggers for determining when the risk becomes a reality (trigger).

Project managers under schedule pressure and focused on meeting critical milestone dates are very reluctant to expend time and energy analyzing risks, let alone determining mitigation strategies. It is often viewed as a time consuming, negative activity. The four activities described above can rarely be the total responsibility of a single individual, be it even the finest project manager within the organization. Risk assessment is a team activity requiring brainstorming sessions with business, finance, human resources and technical leaders involved in the project.

When conducting an initial risk assessment, one should consider a variety of different risk categories, including financial, technical, management, resources, manufacturing, purchasing, engineering, etc. Risks need to be treated in a pro-active, common sense manner to assure that the project's success is not jeopardized when a highly probable risk becomes a reality. Nearly every year we can see a city or within a major organization what happens when a major risk does become a reality and the proper contingency planning has not occurred. During the assessment period we need to identify risks, what their impact would be on the project and/or organization and what is their probability of occurrence.

Table 13 can then be used to determine what the key risks are. The cells in the table are merely the product of the impact times the probability for each identified risk. When a risk is in the shaded area, an organization should perform the following tasks:

- Creation of a contingency plan that includes:
 - ❖ Mitigation strategy.
 - ❖ Triggers for identifying when the risk becomes a reality.
 - ❖ Elimination/Minimization of the risk (if possible and practical).
 - ❖ Approval to exercise the mitigation strategy.
- Adjustment of the project schedule to reflect these highly probable, major impact risks.
- Continuous monitoring and measuring of these highly probable, major impact risks.

Table 13 – Risk Tolerance Boundary

Impact	Catastrophic	5	10	15	20	25
	Critical	4	8	12	16	20
	Significant	3	6	9	12	15
	Average	2	4	6	8	10
	Marginal	1	2	3	4	5
			No Chance	Minor Chance	Some Chance	Probable
		Probability				

The shaded area in the “Risk Tolerance Boundary” table is used to differentiate between tolerable risks and those requiring management’s attention. It is the PMO’s responsibility to assure that each project manager is conducting the necessary risk activities.

Table 14 – Risk Actions

Range	Action	Frequency
0-5	Ignore	All the time
6-9	Monitor	Twice a month
10-14	Monitor	Weekly
15-25	Create Contingency Plan and Monitor	Daily