

1 Introduction

- Can't see future; project plan based on estimates/assumptions.
- Some estimates/assumptions will not turn out as planned.
- Goal of managing risk is not to avoid risk: to know what risks to take, and plan accordingly.
- Idea is to make risk management proactive rather than reactive.
- Crisis management/firefighting are reactive ways of handling risk.
- Mistakes in managing risk:
 - not understanding benefits of risk management: making risky decisions without realizing the potential dangers.
 - not providing time for risk management
 - not using a standardized approach to assessing the risk.
- Successful risk management
 - commitment by all stakeholders
 - stakeholder responsibility: risks should have owners, someone who will monitor the project, and make reports to project governance.
 - recognizing that different projects often have different types of risk.
- Effective risk management: project risk management process
 - Create a risk plan
 - Identify risks
 - Analyze risks
 - Develop risk strategies
 - Monitor and control risk
 - Respond and evaluate risk
- Creating a risk plan
 - Ensures everyone's aware of risk planning
 - Ensures everyone's on board and committed.
 - Ensures resources such as time/people/technology are available
- Identify risks/opportunities

- Identify the risk, not the symptom.
- the primary risk is that measurable-organizational-value is negative.
- that can be result of budget, scope, schedule, quality.
- each of those in turn could be due to technology, people, organizational, environmental, etc.
- internal vs external risks
- knowns-knowns (things we know we know), known-unknowns (things we know we don't know), unknown-unknowns (things we don't know we don't know).
- mitigation to risk: end project, re-evaluate project process, etc.
- Analyze Risk
 - Goal is to place a dollar amount (or some other value indicator) on each risk.
 - Model the kinds of errors/problem we can encounter.
 - Long tails.
 - Expected value: weighted average of risk probability and value if the risk happens.
 - Decision tree: path to a value
- Develop risk strategies
 - risk analysis narrows the list to risks worth doing something about.
 - risk strategies document what should be done in case the scenario happens.
 - e.g. risk falling behind schedule: hire more people or cut scope?
- Monitor and control risk
 - have a mechanism in place to detect when things don't go right.
 - triggers
 - risk audits
 - risk reviews
 - risk status meetings
- Respond and evaluate response to risk
 - when a risk-trigger happens, risk owner is notified and may take appropriate action.
 - the outcome of risk response will either be favorable or unfavorable.
 - must learn from mistakes: lessons learned can lead to better analysis, detection, and response in the future.