

Project Management - Risk

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Risk Management

- Cost, schedule and scope baselines
- Throughout project
- Overall company strategy for managing risk

Risk Management

- Identify risks:
- Documentation Reviews
- Brainstorming
- Delphi Technique
- Nominal Group Technique
- Crawford Slip

Risk Management

- Brainstorming:
- 10 to 15 participants usually
- Meeting is called to make a comprehensive list of risks
- No discussion at first
- Usually less than 2 hours

Risk Management

- Delphi Technique:
- Similar to brainstorming
- Participants do not know one another
- Email can be the medium
- Use questionnaire and then categorize
- Categorized list then circulated for comments and additions

Risk Management

- Nominal group technique:
- Privately and silently list on paper
- Facilitator lists ideas on blackboard
- Rank ideas in order of importance
- Identifies and does a preliminary evaluation

Risk Management

- Crawford Slip:
- Less than half an hour
- Ask ten questions
- Same answer cannot be used for more than one question
- One minute each question
- Repeat same question ten times

Risk Management

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Risk Management

- Other methods:
- Expert Interviews
- Checklists
- Analogy
- Diagramming techniques (cause and effect, flowcharts)

Risk Management

- Risk Assessment:
- Risk tolerance
- Risk probability
- The Addition Rule: $P(A \text{ or } B) = P(A) + P(B)$
- Conditional Probability – if some other event occurs
- Statistical independence

Risk Management

- Multiplication Rule:
- The probability of A and B occurring
- Probability of event A given event B multiplied by the probability of event B
- $P(A \text{ and } B) = P(A|B) \times P(B)$
- Example of dice: $1/6 \times 1/6 = 1/36$

Risk Management

- Decision Trees (show diagram of this)
- Affinity Diagramming – post it notes of all risks and each person is allowed to move into groups

Risk Management

- Risk Response Planning
- Avoidance
- Transfer
- Contracting
- Acceptance
- Mitigation (reduce to acceptable level)

Risk Management

- Important to note:
- Risk is not always bad
- Risk can work in your favor
- These are called Risk Opportunities