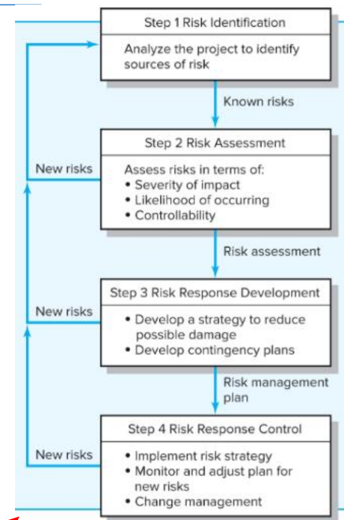
Managing Risk



Risk Management Process

- As project progresses toward completion, risk declines (since critical issues are solved) and cost impact of a risk increases
- Proactive process (not reactive) to ensure surprises are reduced and negative consequences are minimized
- External risks/threats such as inflation, market acceptance, exchange rates, gov. regulations

Step 1 – Risk Identification

- Risk management team brainstorms to identify potential problems
- Focus on events that could produce consequences, NOT objectives
    - EX: poor estimates, adverse weather, shipping delays, etc.
- Risk breakdown structure – hierarchal depiction of project risks by risk category/subcategory that identifies areas and causes of potential risks
- Risk Profile – questions that address traditional areas of uncertainty
    - Recognize strengths and weaknesses of firm
    - Address both technical and management risks

Technical Requirements

Are the requirements stable?

Design

Does the design depend on unrealistic or optimistic assumptions?

Testing

Will testing equipment be available when needed?

Development

Is the development process supported by a compatible set of procedures, methods, and tools?

Schedule

Is the schedule dependent upon the completion of other projects?

Budget

How reliable are the cost estimates?

Quality

Are quality considerations built into the design?

Management

Do people know who has authority for what?

Work Environment

Do people work cooperatively across functional boundaries?

Staffing

Is staff inexperienced or understaffed?

Customer

Does the customer understand what it will take to complete the project?

Contractors

Are there any ambiguities in contractor task definitions?

- Input from customers, sponsors, subcontractors, vendors and other stakeholders is solicited in risk identification

Step 2 - Risk Assessment

- Scenario Analysis – technique for analyzing risks where team assess significance of each risk in terms of:
    - Probability
    - Impact
- Impact scales need to be assessed in terms of project priorities

Relative or Numerical Scale					
Project Objective	1 Very Low	2 Low	3 Moderate	4 High	5 Very High
Cost	Insignificant cost increase	< 10% cost increase	10–20% cost increase	20–40% cost increase	> 40% cost increase
Time	Insignificant time increase	< 5% time increase	5–10% time increase	10–20% time increase	> 20% time increase
Scope	Scope decrease barely noticeable	Minor areas of scope affected	Major areas of scope affected	Scope reduction unacceptable to sponsor	Project end item is effectively useless
Quality	Quality degradation barely noticeable	Only very demanding applications are affected	Quality reduction requires sponsor approval	Quality reduction unacceptable to sponsor	Project end item is effectively useless