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NPTEL ONLINE
CERTIFICATION COURSE

Project Management for Managers

Lec – 19

Risk Management- I

Dr. M.K. Barua

Department of Management
Indian Institute of Technology Roorkee



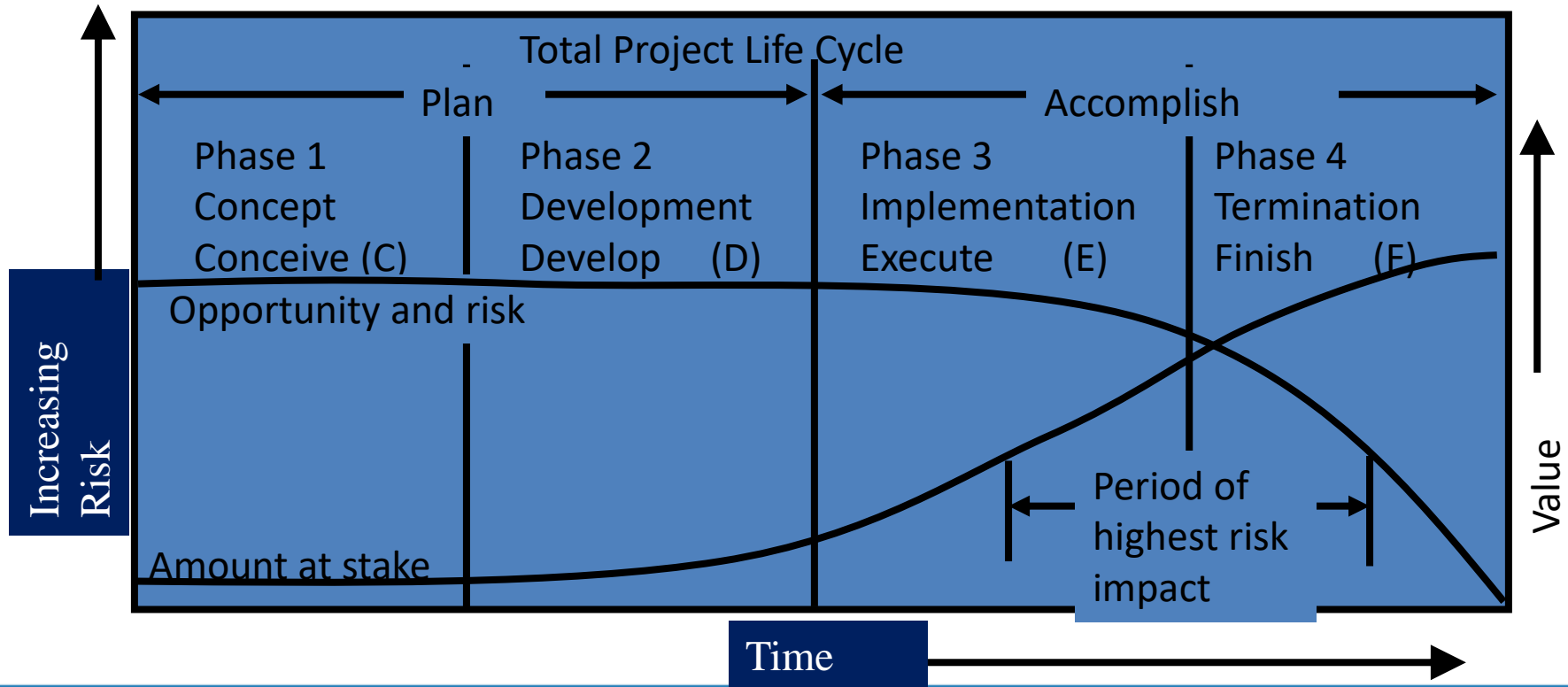
Process of Risk Management

- What is likely to happen? (The probability and impact)
- What can be done to minimize probability or impact of these events?
- What are the warning signs (clues one should look for?)
- What are the likely outcomes of these problems and my actions?

$$\text{Project Risk} = (\text{Probability of Event})(\text{Consequences of Event})$$



Risk Vs Amount at Stake



Four Stages of Risk Management

1. **Risk identification:** determine specific risk factors.
2. **Analysis** of probability and consequences: the potential impact of these risk factors, determined by how likely they are to occur and the effect they would have on the project if they did occur.
3. **Risk mitigation** strategies: steps to minimize the potential impact of those risks.
4. **Control** and documentation: creating a knowledge base for future projects based on lesson learned.



Risks commonly fall into one or more of the following classification Clusters

- Financial
- Technical
- Contractual/Legal
- Common Types
 - Absenteeism
 - Resignation
 - Staff pulled away
 - Time overruns

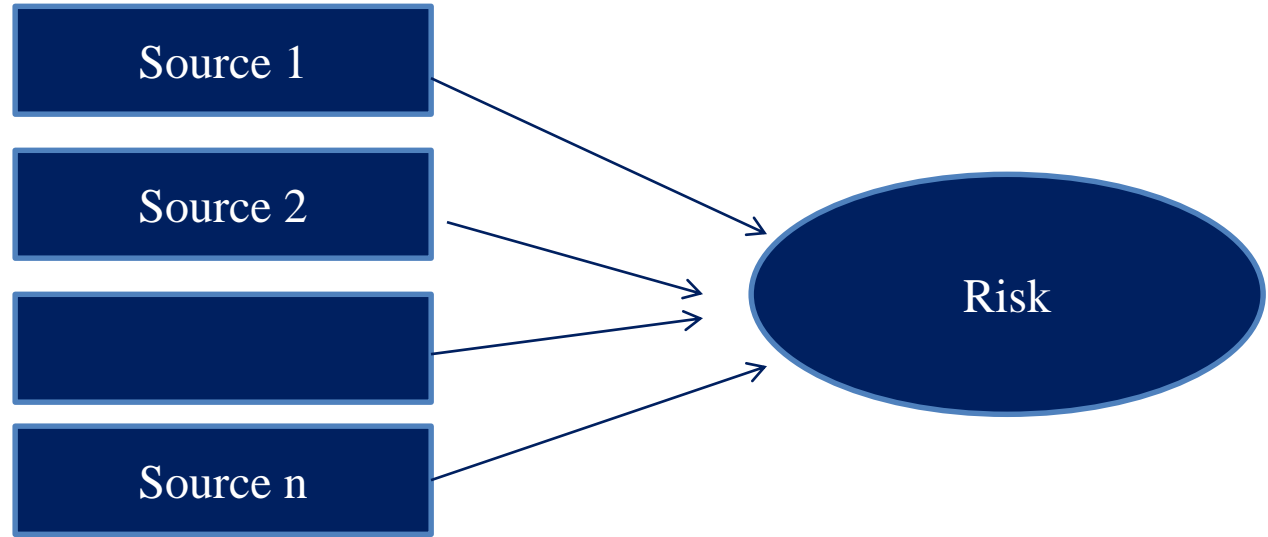
- Commercial
- Execution
 - Skills unavailable
 - Ineffective Training
 - Specs incomplete/initial specs poorly specified
 - Change orders

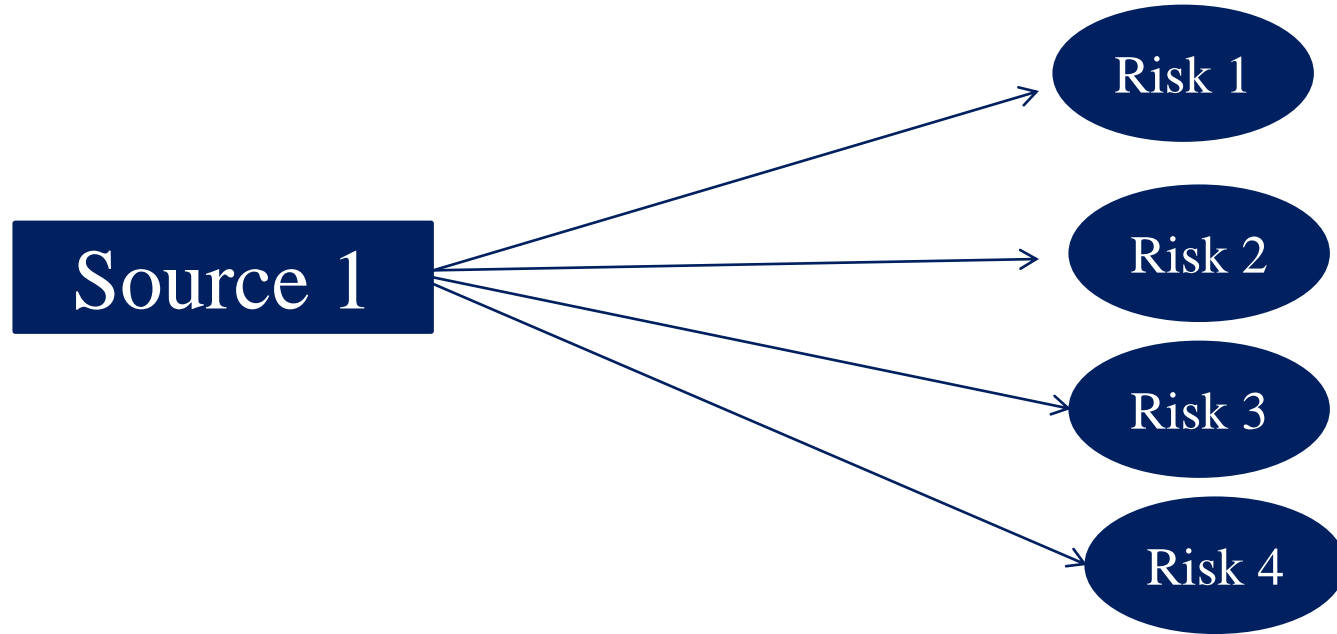


1. Risk Factor Identification

- Brainstorming meetings
- Expert opinion (or Delphi)
- Past history
- Multiple (team based) assessments

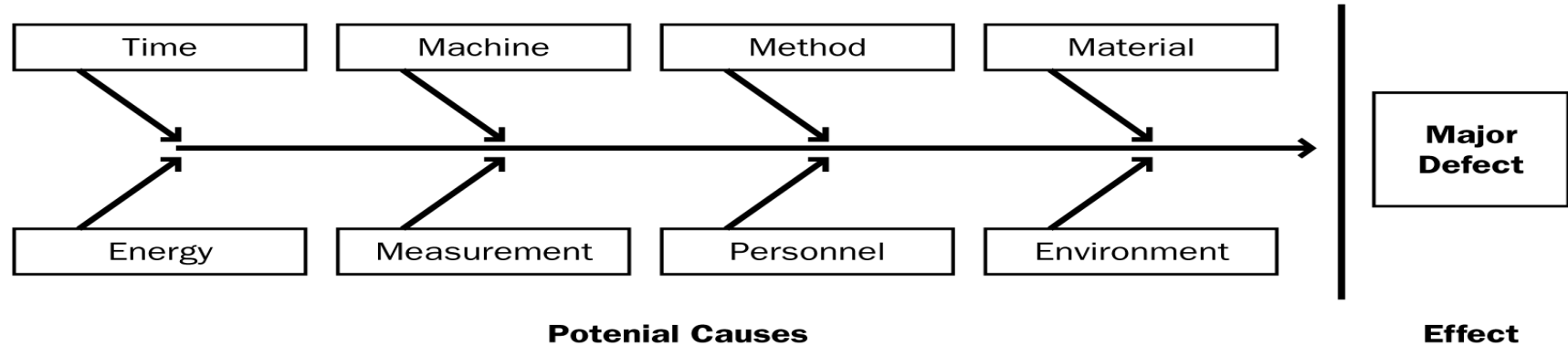




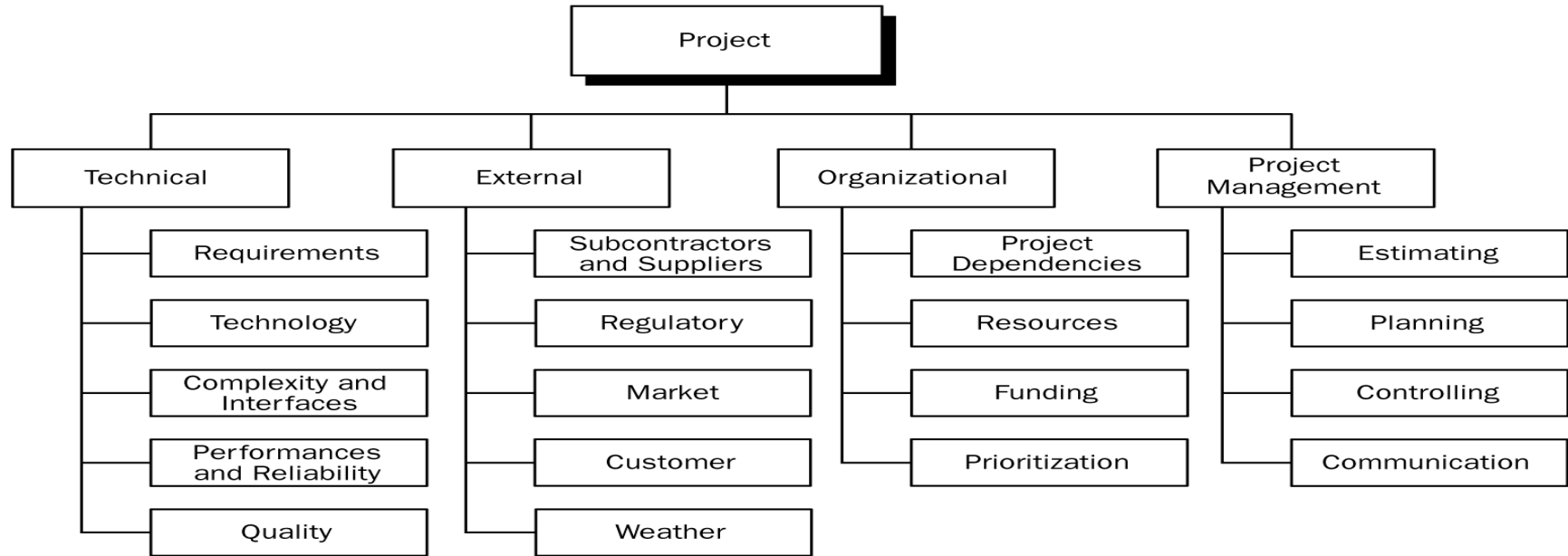


1. Risk Factor Identification

- Documentation Reviews
- Sensitivity analysis
- Assumptions Analysis
- Decision tree analysis
- Simulation
- Diagrammatic technique



Similar to WBS



The Risk Breakdown Structure (RBS) lists the categories and sub-categories within which risks may arise for a typical project. Different RBSs will be appropriate for different types of projects and different types of organizations. One benefit of this approach is to remind participants in a risk identification exercise of the many sources from which project risk may arise.

2. Risk Management Assessment Matrix

		Consequences	
		Low	High
Likelihood	Low		FDI policy
	High	RM (Soya bean - high production cost) but less impact on oil	Raw material from abroad

Can be a 3*3 matrix also or more. Consequences can be severe, moderate, and slight.

