

Project Risk Management

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Disclaimer

- ▶ We are not perfect being. Be are striving for the perfection.
- ▶ We are first time trying to visualize consequences of failing assumptions and dependencies in terms of the project and trying to look beyond issues in a systematic way. Therefore there are many opportunities for the improvements. Let's start doing it and on the way if any opportunity is identified we can incorporate the inputs.
- ▶ There are many ways of individuals and organizations for looking and managing uncertainties we trying to define something for us. Let's understand, define and implement. If it does not work we will refine it but we will not abandon this on the way.
- ▶ Feel free to share your inputs today or anytime in future.

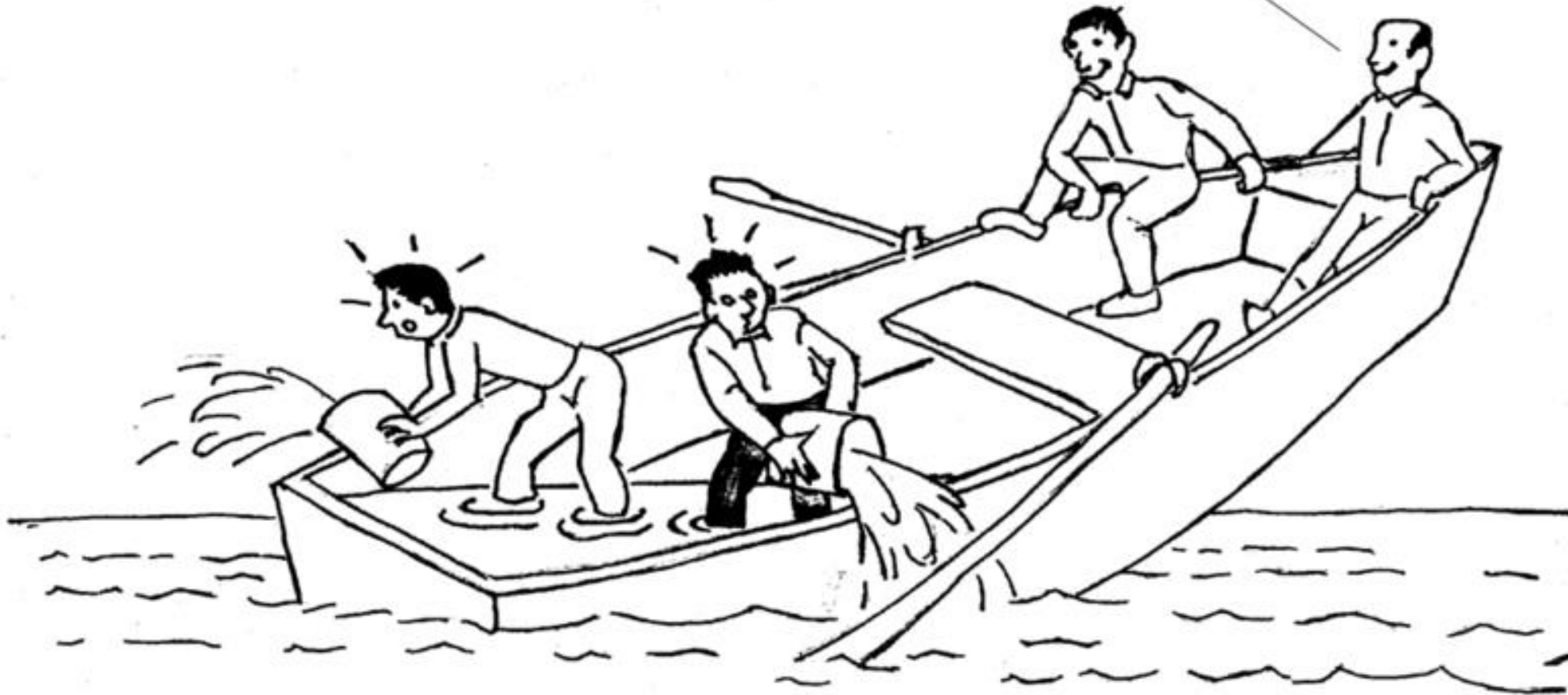
- ▶ This is not
 - ▶ A Meeting
 - ▶ A Lecture of a professor
 - ▶ A Speech of some senior person
 - ▶ One more training in your hectic routine
- ▶ This is a workshop to reset our style of managing uncertainties. Here we are trying to understand how to manage risk where chances of success can be improved significantly.

Agenda

- ▶ What is risk?
- ▶ What is Issue, Concern, Problem?
- ▶ What is Risk Management Framework?
- ▶ How to Identify Risk?
- ▶ How to Prioritize Risk?
- ▶ How to Prepare Responses to a Risk?
- ▶ How to Implement Response Strategy?
- ▶ How to Monitor & Control risk?



Sure glad the hole isn't at our end.





What is Risk?

- ▶ An event which has probability of happening and it may effect project objective negatively or positively
- ▶ Based of Impact Risk May be
 - ▶ Negative Risk
 - ▶ Positive Risk

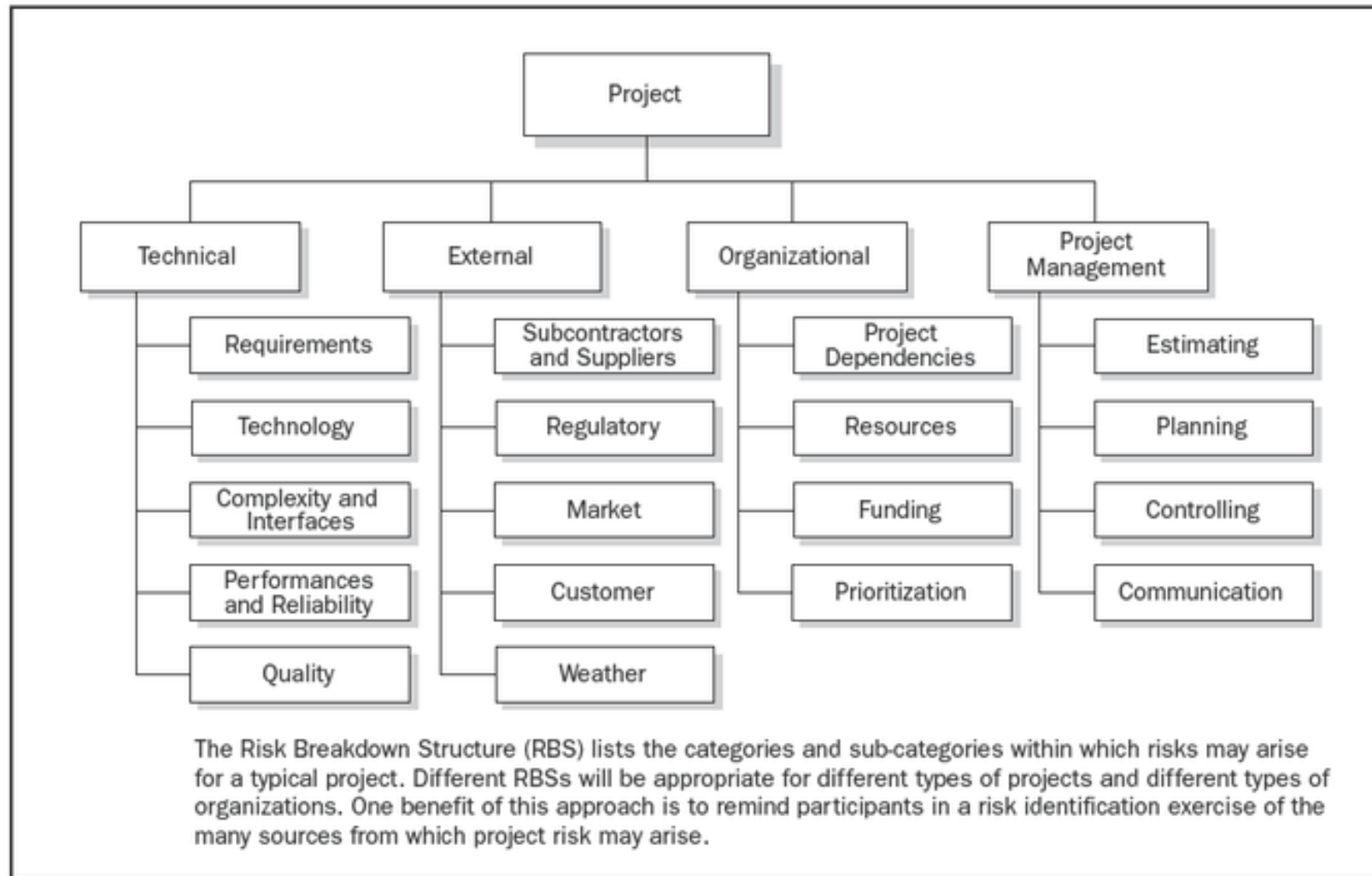
What is Issue, Concern, Problem?

- ▶ An event which has happened and it was not planned and need management attention.
- ▶ Types of issues
 - ▶ Request for Change (requirement changed by user)
 - ▶ Off-specification (missing product or product not meeting its specifications)
 - ▶ Problem or Concern (a team member is sick and it will affect delivery / vendor insolvency and he cannot perform)

Risk Management Framework

- ▶ Risk Sources
- ▶ Risk Breakdown Structure
- ▶ Risk Probability
- ▶ Risk Impact
- ▶ Risk Attitude
- ▶ Risk Appetite
- ▶ Risk Register
- ▶ Risk Exposure
- ▶ Risk Urgency
- ▶ Risk Categorization

Risk Breakdown Structure



Source : PMI PMBOK® *Fourth Edition*

Definition of Impact

Defined Conditions for Impact Scales of a Risk on Major Project Objectives (Examples are shown for negative impacts only)					
Project Objective	Relative or numerical scales are shown				
	Very low /.05	Low /.10	Moderate /.20	High /.40	Very high /.80
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
This table presents examples of risk impact definitions for four different project objectives. They should be tailored in the Risk Management Planning process to the individual project and to the organization's risk thresholds. Impact definitions can be developed for opportunities in a similar way.					

Source : PMI PMBOK® *Fourth Edition*

Probability Impact Matrix

Probability and Impact Matrix										
Probability	Threats					Opportunities				
0.90	0.05	0.09	0.18	0.36	0.72	0.72	0.36	0.18	0.09	0.05
0.70	0.04	0.07	0.14	0.28	0.56	0.56	0.28	0.14	0.07	0.04
0.50	0.03	0.05	0.10	0.20	0.40	0.40	0.20	0.10	0.05	0.03
0.30	0.02	0.03	0.06	0.12	0.24	0.24	0.12	0.06	0.03	0.02
0.10	0.01	0.01	0.02	0.04	0.08	0.08	0.04	0.02	0.01	0.01
	0.05	0.10	0.20	0.40	0.80	0.80	0.40	0.20	0.10	0.05

Impact (relative scale) on an objective (e.g., cost, time, scope or quality)

Each risk is rated on its probability of occurring and impact on an objective if it does occur. The organization's thresholds for low, moderate or high risks are shown in the matrix and determine whether the risk is scored as high, moderate or low for that objective.

Define Threshold

High risk ("red condition")

Medium risk ("yellow condition")

Low risk ("green condition")

Source : PMI PMBOK® *Fourth Edition*

How to Identify Risk?

- ▶ Who is responsible for identifying risk?
- ▶ Who is responsible for managing risk?

How to Prioritize Risk?

- ▶ $E = P \times I$ (Probability x Impact)
- ▶ Based on accepted appetite of Exposure (E)
- ▶

How to Prepare Responses to a Risk?

► Negative Risk

Risk Response Strategies

Negative Risk or Threats

- ▶ **Escalate**
- ▶ **Avoid** (remove the cause of threat)
- ▶ **Mitigate** (reduce the probability or impact)
- ▶ **Transfer** (Shifting ownership)
- ▶ **Acceptance**

Positive Risk or Opportunities

- ▶ **Escalate**
- ▶ **Exploit** (ensure the opportunity is realized)
- ▶ **Enhance** (enhance the probability or impact)
- ▶ **Share** (Transferring ownership)
- ▶ **Acceptance**

Negative Risk Responses

Avoid

Removing the cause of a threat, extending the schedule, changing the project strategy, or reducing scope. Some risks can be avoided by clarifying requirements, obtaining information, improving communication, or acquiring expertise.

Mitigate

Designing redundancy into a system may reduce the impact from a failure of the original component.

Transfer

Transfer ownership of a specific risk. Buy insurance, performance bonds, warranties, guarantees.

Accept

Acceptance can be either active or passive. The most common active acceptance strategy is to establish a contingency reserve. Passive acceptance involves no proactive action apart from periodic review.

Positive Risk Responses

Exploit

Examples: if you are getting some good quality resources at lower cost at certain location then offloading work to that location.

Enhance

Examples: if you are getting some good quality resources at lower cost at certain location then assigning offloading more and more work to that location.

Share

Examples: If you have some business opportunity which you cannot fulfill because of your know-how limitation then you can partner with company and you both can explore to work together to realize the benefits

Accept

Acceptance can be either active or passive. The most common active acceptance strategy is to establish a contingency reserve. Passive acceptance involves no proactive action apart from periodic review.

Understanding Reserves

Contingency reserves : Known - Unknown

- It is designed for use only if certain events occur or only under certain predefined conditions, provided there is sufficient warning to implement the response.
- Examples of events that may trigger the contingency response include missing intermediate milestones or gaining higher priority with a supplier.
- Events triggering the contingency response should be triggered and tracked.

Management reserves: Unknown - Unknown

It is defined for use only if ‘the events that occur or only under certain conditions’, where information about the event & its occurrence is absolutely NOT available.

How to Monitor & Control a Risk?



Am I missing anything?

Do you have any question?

Next Program

- ▶ Project Stakeholder & Communication Management
- ▶ Who should Participate: All who need to manage stakeholders. I think HOD, PM, PMT
- ▶ Time : 27-Dec, Wed, 10.00am - 12am.
- ▶ Location: Admin Block Training Room



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