Continuous Improvement Toolkit

Risk Assessment


Managing Risk
PDPC
FMEA
RAID Logs
Fault Tree Analysis
Risk Assessment*
Traffic Light Assessment
Deciding & Selecting
Pros and Cons
Importance-Urgency Mapping
Break-even Analysis
Cost -Benefit Analysis
Force Field Analysis
Voting
Pugh Matrix
Decision Tree
TPN Analysis
QFD
Matrix Diagram
Kano Analysis
Prioritization Matrix
Critical-to Tree
Paired Comparison
Planning & Project Management*
RACI Matrix
Stakeholders Analysis
PEST
PERT/CPM
Activity Diagram
SWOT
Roadmaps
Project Charter
Gantt Chart
PDCA
Control Planning
Gap Analysis
Hoshin Kanri
Kaizen
How-How Diagram
Tree Diagram**
Standard work
Lean Measures
KPIs
OEE
Capability Indices
MSA
RTY
Descriptive Statistics
Cost of Quality
Reliability Analysis
Graphical Analysis
Cause & Effect Matrix
Pareto Analysis
Confidence Intervals
Understanding Cause & Effect
Probability Distributions
ANOVA
Hypothesis Testing
Design of Experiments
Scatter Plot
Correlation
Regression
5 Whys
Chi-Square Test
Multi-Vari Charts
Relations Mapping*
Identifying & Implementing Solutions***
Simulation
TPM
Mistake Proofing
Pull Systems
JIT
Ergonomics
Work Balancing
Automation
Bottleneck Analysis
Visual Management
Flow
Value Analysis
5S
Understanding Performance
Run Charts
Control Charts
Benchmarking
Sampling
Fishbone Diagram
TRIZ***
Brainstorming
Analogy
SCAMPER***
Nominal Group Technique
Mind Mapping*
Affinity Diagram
Attribute Analysis
Lateral Thinking
Visioning
Creating Ideas**
Wastes Analysis
SMED
Time Value Map
Process Redesign
IDEF0
Value Stream Mapping
SIPOC
Flow Process Chart
Process Mapping
Flowcharting
Service Blueprints
Designing & Analyzing Processes
Data Collection
Focus groups
Interviews
Photography
Check Sheets
Measles Charts
Surveys
Critical Incident Technique
Observations

- Risk Assessment

- A risk is an undesirable situation or circumstance that has a potentially negative consequence.
- All projects face risks and risk management is a key process area of project management.
- If you don't take risk factors into consideration when planning the project, you will not be able to minimize their impact.
- **The implementation plan could include:**
  - A risk assessment highlighting the likelihood and impact of risks.
  - A mitigating action plan.

- Risk Assessment

Risk Assessment:

- Used to evaluate if the project can be brought to successful completion on time.
- **It will determine:**
  - If the project can be completed on time.
  - If the necessary resources will be available.
  - If the benefits will be accrue as predicted.
  - Any potential issue beyond the local control (regulatory, approvals, marketplace, …etc.).

- Risk Assessment

Risk Analysis:

- Risk analysis typically identifies risks through brainstorming and studying the plans (including WBS).
- When analyzing a risk, the two main variables are the **probability** and the **impact** of the risk.
  - **Risk probability** is the chance or likelihood of the risk occurring.
  - **Risk impact** is the effect on the project objectives (if it occurs).
- Sometimes these are multiplied together to give an overall risk severity figure.

- Risk Assessment

Benefits of Risk Assessment:

- Reduce the probability and consequences of potential failures.
- Increase the likelihood of achieving objectives.
- Improve project controls.
- Encourage proactive management.
- Develop stakeholder confidence and trust.
- Establish a reliable basis for decision making and planning.
- Comply with relevant legal and regulatory requirements.
- Improve organizational learning.

- Risk Assessment

At Each Activity or Process Step Ask:

- What could go wrong?
- How?
- How likely is this?
- What would be the impact on he project / business?

- Risk Assessment

Risk Register:

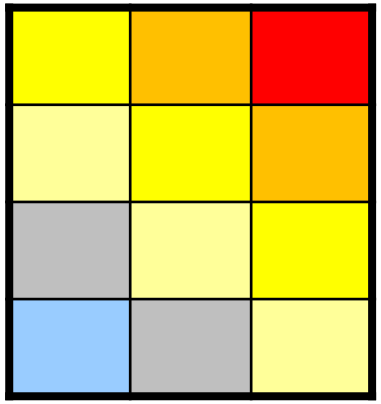
- Risks are often listed in a **Risk Register**, which is then used to manage and track the risks.

Activity / Task	Risk description	Probability (1-5)	Impact (1-5)	P X I	Action

- Risk Assessment

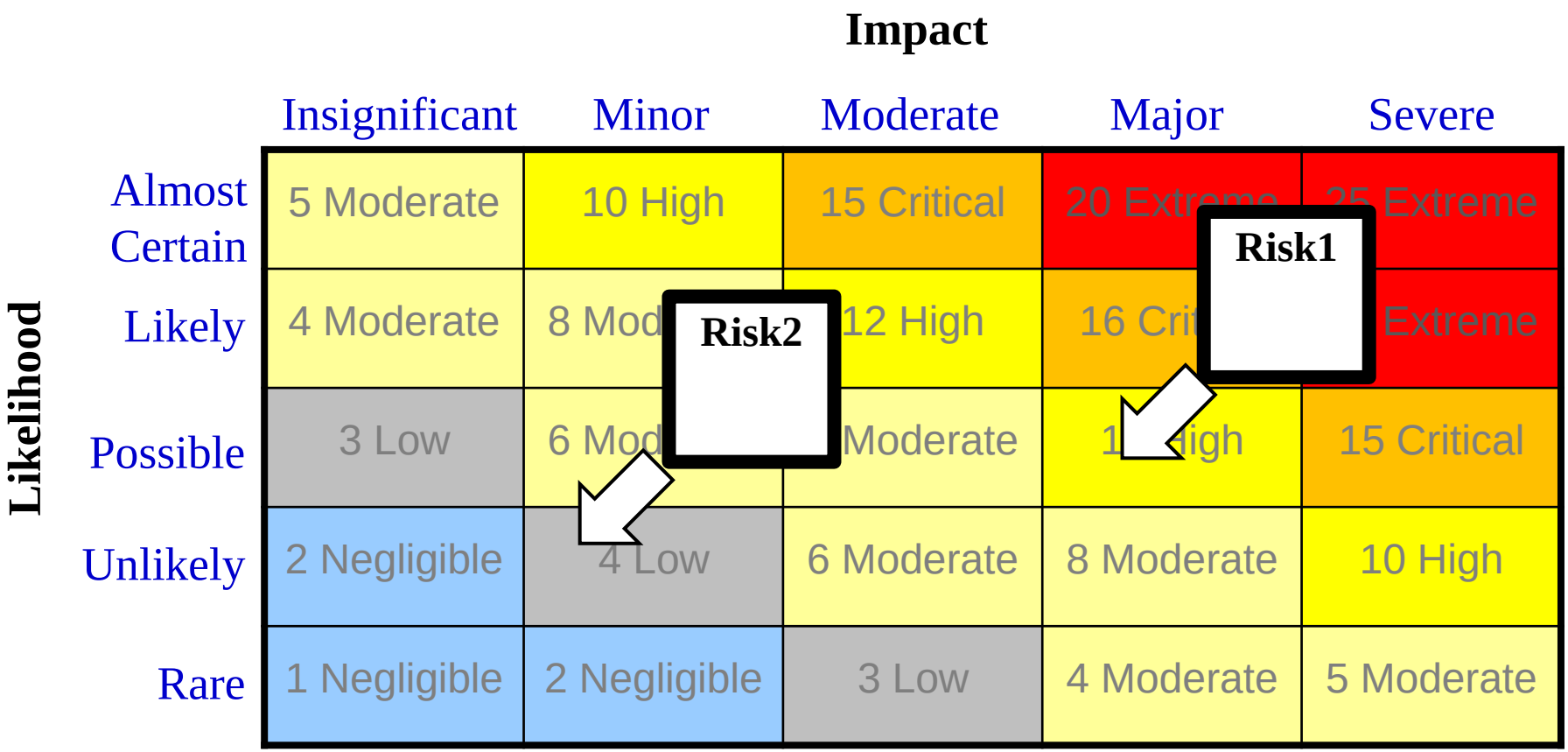
Risk Assessment Matrix:

- Risks can be plotted on a matrix to determine their level.
- Team members then need to discuss how to reduce the probability or impact of selected risks.
- Moving risks will require mitigation action plans and will have a cost associated with it.
- A cost-benefit assessment can hence be done to determine the most effective actions to take.



- Risk Assessment

Example – Risk Assessment Matrix:



- Risk Assessment

Further Information:

- It is important to ensure actions are completed and risk are re-assessed for changes in impact and probability.