An Najah National University
Engineering College
Engineering Management

Project Risk Management

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Project Risk Management

Planning

Division of Project Management

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What is Risk Management Planning

*The process concerned with identifying, analyzing, and responding to project risk.

*Includes maximizing the results of positive events.

*Includes minimizing the consequences of adverse events.

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How Does Risk Management Differ From Change Control?

*What is Risk Management

Risk Management is a systematic approach for making informed decisions while minimizing adverse impacts to project scope, cost, and schedule.

*Risk Management Focuses on identifying risks and managing their outcomes.

Risk Management Process occurs in each phase of the project lifecycle and provides numerous methods for identifying risks.

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Risk Management and Change Control (continued)

*What is Change Control
Change Control provides only one type of Risk Response. That is mitigation by the advancing of certain affected work packages during the PA&ED phase.
*Change Control occurs prior to the end of PA&ED phase of the project.
Change Control is mandated and must be used.

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Caltrans Project Risk Management Process

Risk Management Planning
Risk Identification

*Quantitative Risk Analysis
Risk Response Planning
Risk Monitoring and Control
This process is continuously performed throughout the duration of the project life cycle.

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What's in it for you?

Accurate workload
Better documentation
Better programming = meeting commitments
More information = better decisions
Reduce crisis management "firedrill suppression"
Higher confidence

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Risk Management Planning

Defined: Deciding how to approach and plan the risk management activities for the project

Inputs:

Project charter

Defined responsibilities

Stakeholder risk tolerances

Identify WBS Products

Output: Risk Management Plan

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Risk Identification

Involves identification of the risks that may affect the project and their documentation.

Inputs: Historical Information, Risk Categories, Risk Management Plan

Tools: Checklists, Assumption Reviews, Diagramming techniques

Outputs: Risks, Triggers, Input to other processes

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Qualitative Risk Analysis

Assessing the impacts of identified risks
Inputs: Risk Management Plan, Identified Risks, Project Status, Project Type, Data Precision, Scales of Probability
Tools: Probability/Risk Rating Matrix
Can be downloaded from the Intranet (Available on PM Website)
Output: Risk ranking for the project, prioritized risks, list of risk for additional analysis and management.

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Quantitative Risk Analysis

- Aims to analyze numerically the probability of each risk and consequences on project objectives.
- Inputs: Identified and prioritized risk, expert judgment, risk management plan.
- Tools: Decision tree analysis, sensitivity analysis, simulation.
- Output: Risk Response Plan

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Risk Response Planning

- Developing options and determining actions to enhance opportunities and reduce threats to the project objectives.
- Inputs: Prioritized list of quantified risks, list of potential responses, risk owners and thresholds.
- Tools: Avoidance, mitigation, acceptance, transference.
- Output: Risk Response Plan + Contingency Plans/reserves required for the project

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Risk Monitoring and Control

- Keeping track of identified risks, monitoring residual risks, and identifying new risks.
- Inputs: Scope Changes, project communication, risk response plan, risk management plan.
- Tools: Risk response audits, earned value.
- Output: Workaround Plans, corrective action, project change requests, updates to the risk management plan.

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Tips for Success!

- Consider all team input in the development of project plans and workplan creation.
- Be realistic about scheduled resources and plan execution.
- Monitor efforts – track changes, document changes, review data, report and recommend changes to the process.
- Important to keep workplans and project databases current for accurate project reporting

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Is it working?

Proposed performance measures

- % of projects with Risk Management plans during the PID phase (is it happening)
- % of PCRs due to unidentified risks (builds into the quality of the PCRs)

These measures will be tracked and reported by HQ Division of Project Management (for the measure relating to PCRs) and Planning (for the measure regarding PIDs)

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