

Chapter 4: Risk and Change Management

Weeks 4–5 & 10 |
CLO3, CLO5

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Risk • Change Analysis Virtual Teams

Why Risk & Change Matter?

Risk and change are unavoidable in all projects, especially in **digital and virtual environments**.

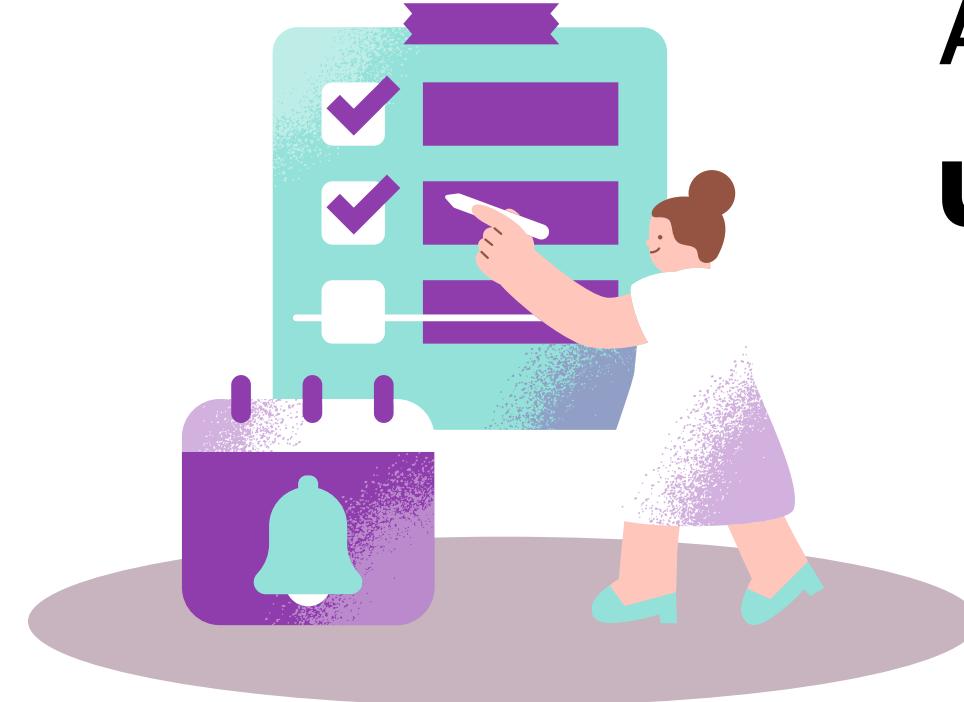
They must be **anticipated, analyzed, and managed systematically** to ensure project success.



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What Is Risk?



According to PMI (2021), **risk = the effect of uncertainty on project objectives.**

Risks may be:

- **Threats** (negative events)
- **Opportunities** (positive potential)



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⚖️ +/- Effects • 🎯 Objectives • 🎲 Probability

Types of Risk Analysis

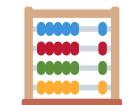
1) Qualitative Analysis



Matrix

- Uses probability/impact ratings (High–Medium–Low)
- Fast and subjective
- Tools: Risk Matrix, SWOT, Delphi

2) Quantitative Analysis



Calculations



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- Uses numerical models
- EMV, Monte Carlo, Decision Tree
- Forecasts cost/schedule outcomes

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Data model

Qualitative Tools (Visual Examples)

- Risk Matrix (probability × impact)
- SWOT (Strengths, Weaknesses, Opportunities, Threats)
- Delphi (expert consensus)



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Grid



SWOT Lens



Expert group

Quantitative Tools (Visual Examples)

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- **EMV (Expected Monetary Value)**
- **Monte Carlo Simulation**
- **Decision Trees**



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🧠 EMV • 🌐 Simulation • 🌲 Decision path

Risks in Virtual Teams

- Special risks in digital environments:
- Platform reliability
- Cybersecurity threats
- Data sharing & confidentiality
- Miscommunication
- Time zone issues



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System failure



Cybersecurity



Time zones

Risk Response Strategies (PMBOK)

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- Avoid** – remove the risk entirely
- Mitigate** – reduce probability/impact
- Transfer** – outsource the liability
- Accept** – acknowledge + prepare backup



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🚫 Avoid • ⚓ Mitigate • ↗ Transfer • ✓ Accept

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Mitigation Planning

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- **Proactive prevention measures**
- **Example: Training team members on digital tools**
- **Clear protocols reduce errors**
- **Improve security & communication clarity**



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Skills • **Training** • **Protocols**

Contingency Planning

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“What if” scenario planning:

- Backup communication platforms
- Secondary data storage
- Substitute leadership roles
- Clear decision rules



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Backup •



Alternatives •



Emergency plan

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The Risk Register

A living document that includes:

- Identified risks
- Owners
- Response strategies
- Review dates



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Register •  Ownership •  Review cycle

What Is Change Management?

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Change management = **Guiding individuals and teams from current → desired future state (Hiatt, 2006).**

It reduces resistance and enhances adoption of new processes.



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Transition •



Resistance •



Future state

Major Change Models

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Lewin (Unfreeze → Change → Refreeze)

Simple method for initiating structured change.

Kotter's 8 Steps

Urgency → Vision → Wins → Anchoring

ADKAR Model

Awareness → Desire → Knowledge → Ability → Reinforcement



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Unfreeze •  **Urgency** •  **ADKAR steps**

Knowledge Transfer in Virtual Teams

Lewin (Unfreeze → Change → Refreeze)

Simple method for initiating structured change.

Kotter's 8 Steps

Urgency → Vision → Wins → Anchoring

ADKAR Model

Awareness → Desire → Knowledge → Ability → Reinforcement



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Unfreeze •  **Urgency** •  **ADKAR steps**

Barriers to Knowledge Transfer

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- Poor communication discipline
- Lack of shared understanding
- Weak documentation
- Low psychological safety
- Fragmented tools



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Miscommunication •



Missing files •



Gaps

Building Team Resilience

Resilience = capacity to **withstand, adapt, and grow** amid uncertainty.

- Dimensions (Mallak, 2017):
- Preparedness
- Flexibility
- Learning orientation
- Supportive culture



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Resilience • **Flexibility** • **Learning**

Adaptability in Digital Teams

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Enabled by:

- Growth mindset (Dweck, 2016)
- Use of collaborative tools
- Rapid decision cycles
- Psychological safety



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Growth •  **Agility** •  **Safe climate**

Summary



- Risks must be analyzed qualitatively & quantitatively
- Effective responses: avoid, mitigate, transfer, accept
- Contingency planning = essential for continuity
- Change models guide team transition
- Knowledge transfer requires structure + trust
- Resilience turns disruption into innovation



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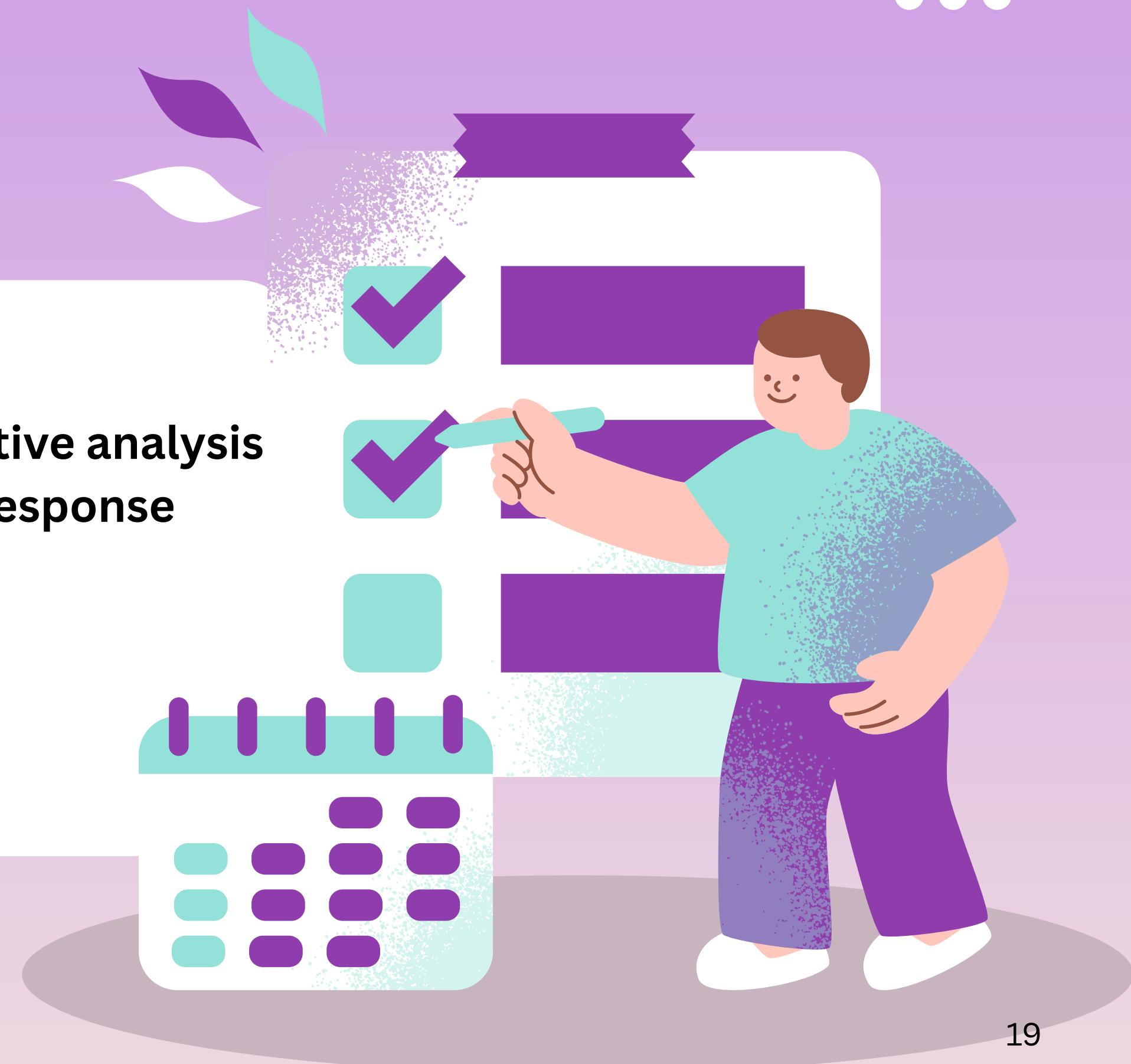
Insight • Change • Success

Review Questions

- Differences between qualitative vs quantitative analysis
- How mitigation & contingency support risk response
- Which change model fits virtual teams best?
- Barriers to knowledge transfer?
- How to cultivate resilience?



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Thank You



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