Project Risk Management

Strategies and Techniques for IT Success

7204201 Project Management in Information Technology : Paranya Palwisut

NotebookLM

The Two Sides of Risk

Threats (Negative)

Minimizing downside impact. Managing and preventing risks that could lead to project failure or deviation from baseline goals.

Opportunities (Positive)

Maximizing upside potential. Extracting potential from uncertainty to create maximum benefit, efficiency, and value for the IT initiative.

NotebookLM

Navigating the Lifecycle: The 6 Core Processes

NotebookLM

Step 1: Establishing the Master Blueprint

Performance Summaries

Establishing the baseline framework and boundaries for all remaining steps (identification, analysis, response).

Reporting Formats

Standardizing the structure, frequency, and specific templates for all risk-related communications.

Tracking Methodologies

Defining the systematic approaches the team will use to log progress, record incidents, and maintain ongoing surveillance.

NotebookLM

The Origins of Vulnerability: The 9 Core Risk Factors

Integration
Inefficient planning or resource allocation.

Scope
Vague, undocumented, or creeping project boundaries.

Time
Inaccurate critical path calculations or poor scheduling.

Cost
Budget estimation errors or funding instability.

Quality
Neglecting rigorous QA/QC processes.

HR
Poor team structure, internal conflict, or lack of leadership.

Communications
Inadequate stakeholder alignment and reporting.

Risk
Flawed initial analysis or ignoring early warning signs.

Procurement
Uncontrollable external factors, vendor failures, or supply chain issues.

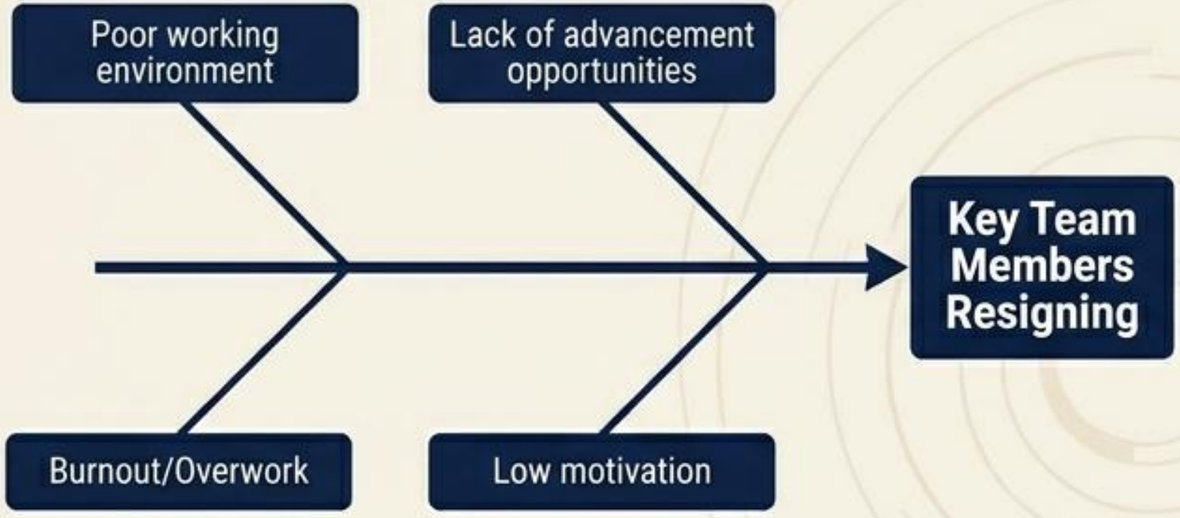
NotebookLM

Step 2 Tools: Selecting the Right Collaborative Approach

Brainstorming	**Nominal Group**	**Delphi Technique**	**Interview**
Process: Open, simultaneous, unconstrained group ideation.	**Process:** Silent, individual writing followed by structured group voting.	**Process:** Anonymous, iterative questionnaire rounds with domain experts.	**Process:** Direct face-to-face or virtual deep dives dives with key stakeholders.
Output: High volume of diverse, unfiltered risks ready for categorization.	**Output:** Reduced bias, balanced participation, and clearly prioritized rankings.	**Output:** Objective consensus completely free from individual dominance or office politics.	**Output:** Deep, factual insights rooted in direct, specific past experiences.

NotebookLM

Step 2 Tools: Structural Risk Identification Techniques



Root Cause Analysis

SWOT Analysis

Evaluating Internal Capabilities vs External Environment

Lessons Learned

Mining historical project logs and post-mortems to systematically prevent the repetition of past mistakes.

NotebookLM

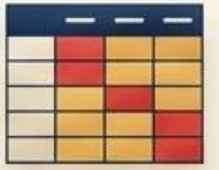
Steps 3 & 4: The Severity Formula

Qualitative Analysis

Assessing likelihood and impact based on expert perception to prioritize risks against project goals.

Probability (Likelihood) × **Impact** (Consequence) = **Severity** (Total Risk Exposure)

Example: IT Delay (Probability Level 3) × Budget Overrun (Impact Level 4) = Severity Score 12.



Quantitative Analysis

Applying numerical analysis and hard data to formulate precise response strategies.

NotebookLM

The Assessment: Navigating the Risk Heat Map

Legend	Strategic Response
	White Zone (1-8): Low Severity Strategy: Accept. Routine operations continue.
	Yellow Zone (9-12): Medium Severity Strategy: Accept with Conditions. Requires close, ongoing monitoring.
	Orange Zone (13-20): High Severity Strategy: Control. Requires dedicated mitigation plans and secondary controls.
	Red Zone (21-25): Critical Severity Strategy: Transfer or Avoid. Immediate executive intervention required.

NotebookLM

Step 5: Defensive Risk Response Strategies

Risk Avoidance

Eliminating the threat entirely by removing the root cause or drastically changing the project plan.

IT Case Study: Pivoting away from a highly complex, unproven custom software build and choosing a Commercial Off-The-Shelf (COTS) product using familiar hardware infrastructure.

Risk Acceptance

Acknowledging the risk and choosing to bear the consequences, typically because prevention costs far exceed the potential damage.

IT Case Study: Absorbing minor scope variations without formal change requests, while having a contingency plan prepared for real-time frontline adjustments.

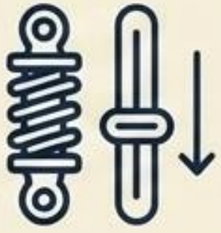
NotebookLM

Step 5: Proactive Risk Response Strategies

Risk Transference

Core Concept: Shifting the financial impact and operational responsibility of the risk to a third party.

IT Case Study: Purchasing specialized liability insurance for critical IT hardware, or hiring expert, niche outsourcing firms to assume responsibility for complex deployments.



Risk Mitigation

Core Concept: Taking proactive steps to reduce the probability of occurrence or the magnitude of the impact before the event happens.

IT Case Study: Investing heavily in genuine software licenses, deliberately hiring specialized staff, and increasing the frequency of rigorous system stress tests.

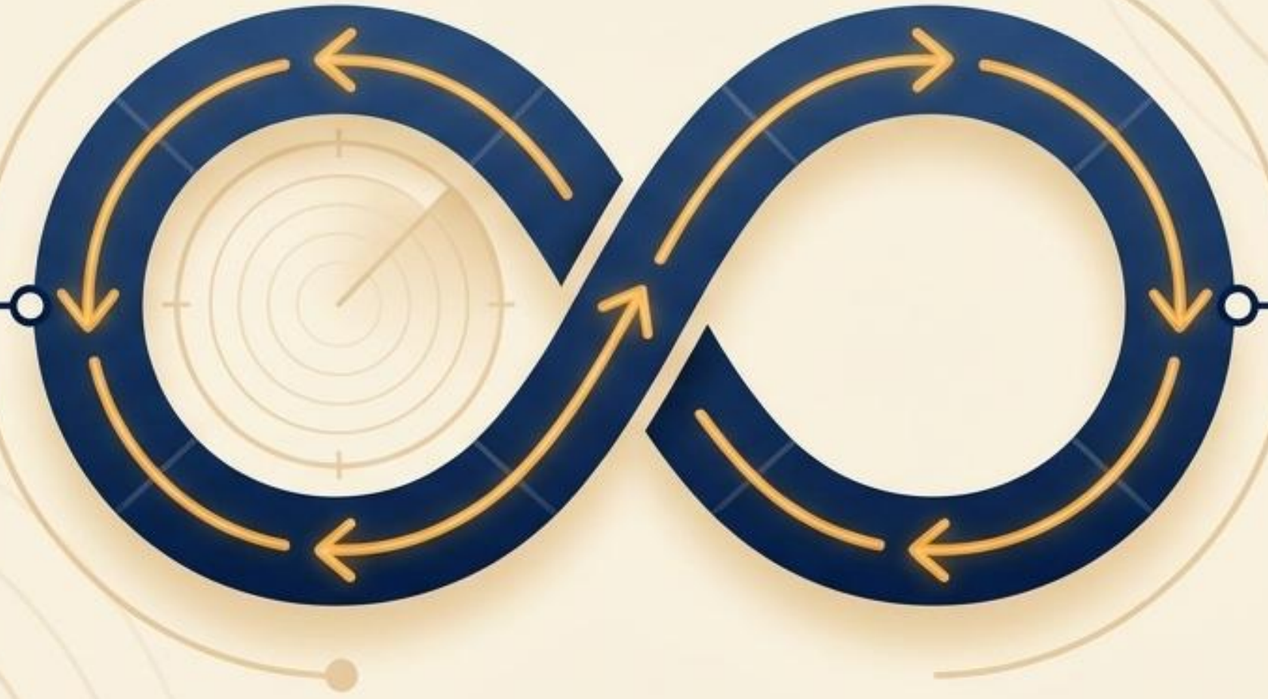
NotebookLM

Step 6: The Continuous Radar

Risk management is not a one-time administrative chore; it is an active, vital process spanning the entire project lifecycle.

Monitoring (Detection)

Actively tracking the status of previously identified baseline risks while keeping the radar on full sweep to detect entirely new, emerging threats.



Control (Assessment)

Continuously auditing the effectiveness of deployed risk responses. Are the mitigation strategies actually working, or do they need immediate recalibration?

NotebookLM

Synthesis: Integrating the 9 Success Factors

Risk Management is not merely the process of preventing failure. It is the art and science of navigating uncertainty.

By systematically **mastering and integrating these 9 critical factors**, we transform project vulnerabilities into our ultimate roadmap for secure, high-value IT success.

NotebookLM