Agile Risk Management

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May 20, 2014
Objectives

- What is Project Risk Management?
- What is Agile?
- What is Agile Risk Management?
- Recommendations for Implementing
- Risk as an Opportunity!!!
Foundations: Agile Projects

- Increased need for Agile Project Management
  - PMI-ACP- fastest growing PMI certification

- How do project management methodologies like Risk Management fit into Agile Practices?

- As PMs we have heard of risk management and Agile, but how do these methodologies relate?
- How can we use them to manage resources and do more with less on our projects?

- What is Project Risk Management and how does it work?
Foundations: Flight

◆ First powered flight was 12/17/1903:
  - Kill Devil Hills, NC (Outer Banks)
  - 12 seconds
  - 120 feet
  - Pilot Orville Wright

◆ Hang Gliding
  - 1880’s
  - Non powered flight [foot launch-able aircraft]
  - Aluminum alloy or composite frame, with a fabric wing
  - Pilot hangs from harness suspended from the airframe
  - Pilot steers by shifting their body weight
  - Francis Rogallo: Flexible Wing (1951)
The Art of Agile Risk Mgmt.

Flight: https://www.youtube.com/watch?v=hgof_A1Wv5s
Risk Defined

- **A Risk** is an **uncertain event or condition**, that if it occurs, has a positive or negative effect on at least one objective

- **Probability** $+$ **Impact** $=$ **Risk Exposure**

**Probability:**
The Likelihood of Occurrence
That an Objective Will Not Be Met Using the Current Plan

**Impact:**
The Consequence of Occurrence Penalty Incurred If the Objective Is Not Obtained

- **Risk vs. Issue**
  - A **Risk** is an event that may occur in the future
  - A **Problem** or **Issue** is something that has already occurred and you are dealing with now
Project Risk Management

Risk Management is an organized, systematic decision-making process that efficiently plans, assesses, handles, monitors, and documents risk to increase the likelihood of achieving project goals and decrease the likelihood that a risk would become a future problem.
Project Constraints

- Fundamentally, only 2 of the 3 aspects of the triad can be selected. The 3 is then determined by the aspects which are selected.
Project Risk Management Process

- **Identification**
  - Discovery of a potential risk

- **Assessment**
  - Review, analysis, and prioritization

- **Response Planning**
  - To mitigate, avoid, transfer or assume assessed risks

- **Execution**
  - Of response strategies, as determined in response planning

- **Planning, Monitoring, Documentation and Communication**
  - Foundations of the RMP, essential to all phases
  - Part of continuous process improvement for the RMP
**Risk Identification**

- When is it appropriate to identify a risk?
  - If the risk poses **threats** to meeting success criteria, mission **objectives**, critical **milestones**, etc
  - If you need **resources** to resolve the risk
  - If broader **awareness** is needed
  - If the risk presents threats to completing tasks
  - If you’re not sure... **Identify the Risk!**
Risk Identification

Risk Statements/Descriptions are written in a structured manner

- State the risk: “If…, then…” statements
  - Condition (‘If’ statement)
  - Consequence (‘Then’ statement)

“If I have a flat tire while commuting to work, then I may not get to work on time”
Risk Assessment (Analysis)

- Risk Assessment/Analysis
  - What is the probability of the risk occurring?
    - Qualitatively (e.g., “high probability”)
    - Quantitatively (e.g., “1 in 1000 chance”)
  - What is the impact if the risk occurs?
  - Both Probability and Impact are determined
  - These are plotted to determine the Risk Exposure
Use a Risk Assessment Matrix (Risk Map)
Response Planning

Risk Response Strategies:

- Mitigate: Pre-Event actions to reduce the probability or impact of a risk

- Avoid: Eliminate the risk producing activity entirely by choosing an alternate approach.

- Transfer: Take actions that redistribute risk to another area. (This does not relieve the responsibility of tracking and closing the risk)

- Assume: Accept the risk as stated with no other action.
Execution

- Implement response strategies, as determined during response planning.

- This includes:
  - Mitigate
  - Avoid
  - Transfer
  - Assume
Risk Planning, Monitoring, Documentation & Communication

- Monitor & Track using the risk register
- Communicate Risk to Project Stakeholders
- Understanding and Prioritization of Risks
  - Facilitate Early Mitigation, Minimize Program Issues
The Agile Manifesto

“We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

- **Individuals & interactions** over **processes and tools**
- **Working software** over **comprehensive documentation**
- **Customer collaboration** over **contract negotiation**
- **Responding to change** over **following a plan**

That is, while there is value in the items on the right, we value the items on the left more.”

*Reference: [www.agilemanifesto.org](http://www.agilemanifesto.org)
Agile Project

- Rolling Wave Planning
- Iterative and Incremental Delivery
- Rapid and Flexible Response to Change
- Open Communication
- Work delivered to customer in small frequent releases
- Examples:
  - Scrum, XP (eXtreme Programming), Lean and Test-driven Development (TDD), Kanban, & …
The Art of Agile Risk Management

- Your project as a successful flight from take off to landing...
Your project as a successful flight from take off to landing...

- **Training/ Certification → Project Planning**
- **Preflight: equipment inspection, objectives, conditions (enterprise environmental factors) → Iteration Planning**
- **Take off 🛫**
- **Flight → Executing on Response Plans while Controlling Risk and adapting to new plan**
- **Landing (a process, not a moment) → the later part of execution**
- **Post Flight Assessment (lessons learned) → Capture of Lessons Learn and Closing (retrospective)**
The Art of Agile Risk Management

Your project as a successful flight from take off to landing...

- Training/ Certification → Project Planning, including Risk Management
The Art of Agile Risk Management

Your project as a successful flight from take off to landing...

- Preflight: equipment inspection, objectives, conditions (enterprise environmental factors) → Iteration Planning
The Art of Agile Risk Management

Your project as a successful flight from take off to landing...

- **Take off** 🛫
- **Flight → Executing on Response Plans, while Controlling Risk and adapting to a new Plan**
The Art of Agile Risk Management

RELAX, LOOK AHEAD
The Art of Agile Risk Management

- Risk Management is **built into** Agile Practices
- RM is integrated in Agile, but **not transparent**
- Risk is constantly reviewed

- Risk relates to **Value** (evaluate these together)
- View and adjust the Backlog based on Risk
- Risk Burn-Down Chart
  - As the project progress risk decreases
The Art of Agile Risk Management

Your project as a successful flight from take off to landing...

- **Landing (a process, not a moment) → the later part of execution**
Progress measured by what is being delivered/working

Focus on Quality (Testing First!)

Owners:
- Product Owner, Team, Team Facilitator

Meetings:
- Iteration Planning, Daily Meetings, Iteration Review

Artifacts:
- Product Backlog, Iteration Backlog, Burndown Chart, Release Plan
The Art of Agile Risk Management

Your project as a successful flight from take off to landing...

- **Post Flight Assessment** (lessons learned) → **Capture of Lessons Learn and Closing** (retrospective)

- **Regular and iterative capturing of lessons learned**
The Art of Agile Risk Management

Team Assessment…

Of the Team and for the Team
Agile Risk Management Process

- **Identification**
  - Discovery of potential risk

- **Assessment**
  - Review, analysis, and prioritization

- **Respond**
  - Mitigate, avoid, transfer or assume assessed risks

- **Review**
  - Assess the effectiveness of responses
The Art of Agile Risk Management

- Agile Principles and Practices, Used to:
  - Manage Change
  - Improve Communication
  - Reduce Cost
  - Increase Efficiency
  - Provide Value to Customers and Stakeholders
  - Decrease Project Risk
Agile RM Implementation

- Risk Identification by everyone on the team!
- Being conscious of risk
- Being intentional about risk planning
- Risk Assessment (separate from identification)

Planning:
- Use Iterative Planning Meetings to manage iteration risks
- Team communicates with Customer - escalating high risks
- Work with the Customer to identify concerns and reduce risk
Agile RM Implementation

◆ Iteration Planning
  ➢ Evaluate Risks for each iteration
  ➢ For the next 2-3 iterations

◆ Daily Standup Meetings
  ➢ Response Planning out of barriers determined in daily team meetings

◆ Quick Experiment/ Investigation
  ➢ For risk mitigation planning

◆ Iteration Review
  ➢ How were risk successful handled?
  ➢ What risk were not Identified?
  ➢ What risk responses, or process could be used in the future?
Risk Management is an organized, systematic decision-making process that efficiently plans, assesses, handles, monitors, and documents risk to increase the likelihood of achieving project goals and decrease the likelihood that a risk would become a future problem.

Agile Risk Management is about incorporating risk management into the Agile framework as part of the iterative process to increase the likelihood of achieving product goals and decrease the likelihood that a risk would become a future problem.

Risk Management is everyone’s job! That means you!
Agile Risk Management

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The Art of Agile Risk Management

◆ Agile Principles and Practices, Used to:
  ➢ Manage Change
  ➢ Improve Communication
  ➢ Reduce Cost
  ➢ Increase Efficiency
  ➢ Provide Value to Customers and Stakeholders
  ➢ Decrease Project Risk
If You Haven’t Identified Your Risks,
You're Already Taking Them.
For discussion and resources on Risk Management…

Please join us on LinkedIn in the

Risk Management Implementation Group
http://www.linkedin.com/groups?mostPopular=&gid=3442533

Agile Risk Management Group
http://www.linkedin.com/groups?gid=4020498&trk=myg_ugrp_ovr

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Additional Information

PMI-RMP® Certification
“PMI’s Risk Management Professional (PMI-RMP)® credential is a response to project management’s increasing growth, complexity and diversity. Globally recognized and demanded, the PMI-RMP® fills the need for a specialist role in project risk management.”

“It recognizes your unique expertise and competency in assessing and identifying project risks, mitigating threats and capitalizing on opportunities, while still possessing a baseline knowledge and practical application in all areas of project management.”

PMI-RMP® Certification

Who should apply:
◆ Risk management specialists and Project Risk Managers
◆ To increase your skills in project management
◆ To highlight your specialized expertise to employers

PMI-RMP Requirements:
◆ A 4 year degree (bachelor’s or the global equivalent), with at least 3,000 hours of project RM experience and 30 hours of project RM education.

OR
◆ A secondary diploma (high school or the global equivalent) with at least 4,500 hours of project RM experience and 40 hours of project RM education.

PMI-RMP® Certification

How to Apply:
- Online at www.pmi.org
- More Info:
  - PMI-RMP Handbook
  - PMI-RMP Exam Preparation

Maintain Your PMI-RMP:
- Earn 30 PDUs/ 3 year cycle in project risk management

Additional Information

PMI-ACP® Certification
“PMI’s Agile Certified Practitioner (PMI-ACP)® credential is a response to project management’s increasing need for agile expertise. The PMI-ACP recognizes knowledge of agile principles, practices and tools and techniques across agile methodologies.” (PMI, 2014)

By earning the PMI-ACP®, practitioners can:

- Demonstrate to employers their level of professionalism in agile principles, practices, tools and techniques.
- Increase their professional versatility in project management tools and techniques.
- Hold a certification that is more credible than existing offerings based only on exams or training.

PMI-ACP® Certification

Who should apply:
- If you already use agile practices or your organization is adopting agile methods, earning the PMI Agile Certified Practitioner (PMI-ACP)® certification will demonstrate your knowledge of and commitment to this rapidly growing approach to project management.

PMI-ACP Requirements:
General Project Experience
- 2,000 hours working on project teams (within the last 5 years), or an active PMP®

Agile Project Experience
- 1500 hours working on agile project teams or with agile methodologies (within the last 3 years)

Education
- 21 contact hours in agile practices

PMI-ACP® Certification

How to Apply:
- Online at www.pmi.org
- More Info:
  - PMI-ACP® Handbook
  - PMI-ACP® Exam Content Outline
- Learn more at: http://www.pmi.org/Certification/New-PMI-Agile-Certification.aspx