

Cultivating Success: Risk Management in Agile Projects Unveiled



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Presenter

Mohamed Khalifa Hassan is a renowned project management consultant and speaker with over 20 years of experience. He has successfully implemented project/program management offices

(PMOs) and project management information systems (PMIS) across diverse platforms. Holding a Bachelor's Degree in Business Administration and Post Graduate Diplomas in both Business Administration and Management Information Systems, Mohamed is a sought-after speaker at global PMI forums.

As a Partner at The Valense Palatine Group and the Director, Consulting & Solutions at LIFELONG Innovation Studio, Mohamed is deeply involved in business and IT realms. He holds major PMI credentials, including PfMP, PgMP, PMP, PMI-SP, PMI-RMP, PMI-ACP, PMI-PBA, CAPM, and DASSM, along with other notable certifications.



Mohamed Khalifa, Project Management Consultant,
Coach & PMI Authorized Instructor

“ 91% of organizations consider Agile adoption a strategic priority” -KPMG

“53% of marketing teams follow a hybrid Agile methodology”

AGENGA

- Agile Fundamentals
- Identifying Risks in Agile Projects
- Responding to Risks in Agile
- Transforming Challenges into Opportunities.
- Actionable Insights and Best Practices .
- Conclusion
- Q&A Session

Agile Fundamentals

Definition and core principles of Agile methodology

Overview of Agile frameworks (e.g., Scrum, Kanban)

The role of feedback and iterations in managing project risks

Agile Definition

A dynamic approach to project management that helps teams deliver value to their customers faster and with fewer headaches. It emphasizes flexible responses to change and iterative progress through collaboration.

<https://www.pmi.org/disciplined-agile/agile/whatisagile>

Core Principles of Agile methodology

Our top priority is to satisfy the customer through early and continuous delivery of value.

We welcome changing requirements, even late in the work and important value added to the customer

Quick delivery from a few weeks to a few months, with a preference for the shortest time scale.

Businessmen and staff must work daily throughout the project.

Building projects around enthusiastic individuals gives them the environment, the support they need, and the confidence they need to get the job done.

The most efficient and effective way to transfer information into the development team is face-to-face conversation.

The value provided to the customer is the primary measure of progress.

Keep the pace steady for work.

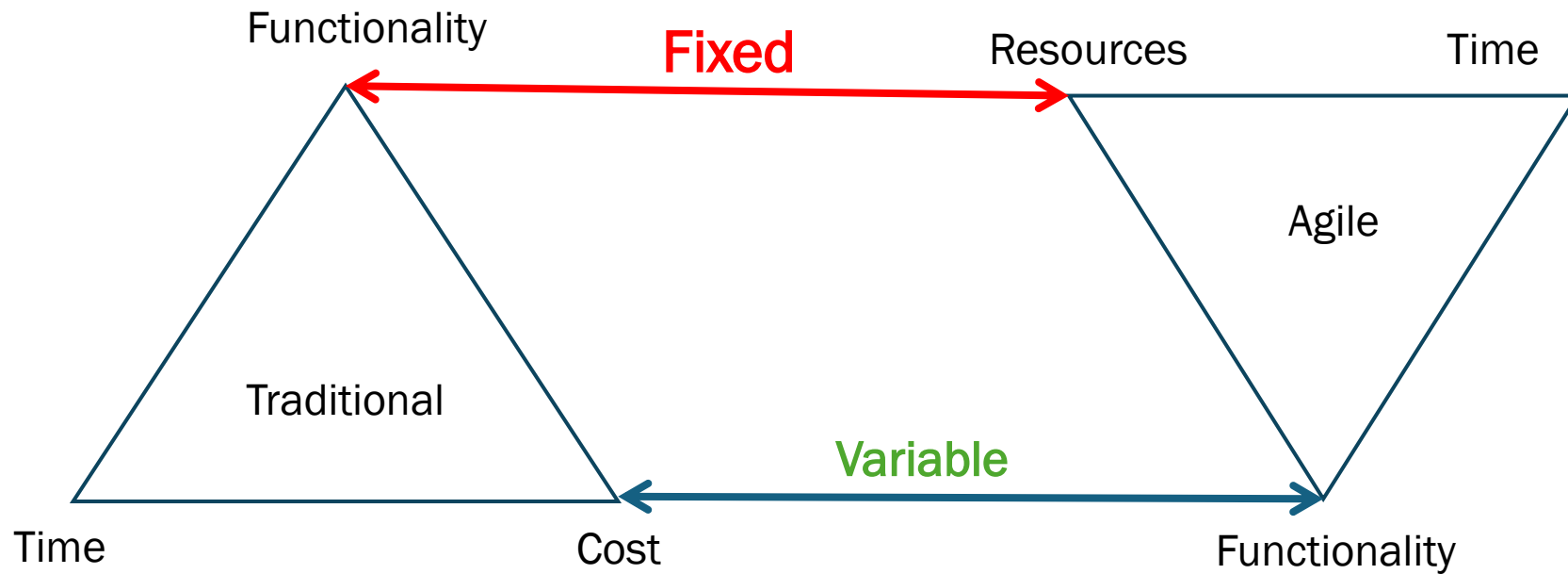
Constant interest in technical excellence and good design that enhances agility

Simplicity — the art of maximizing the amount of work that should not be done is essential.

The best achievements come from self-regulating teams.

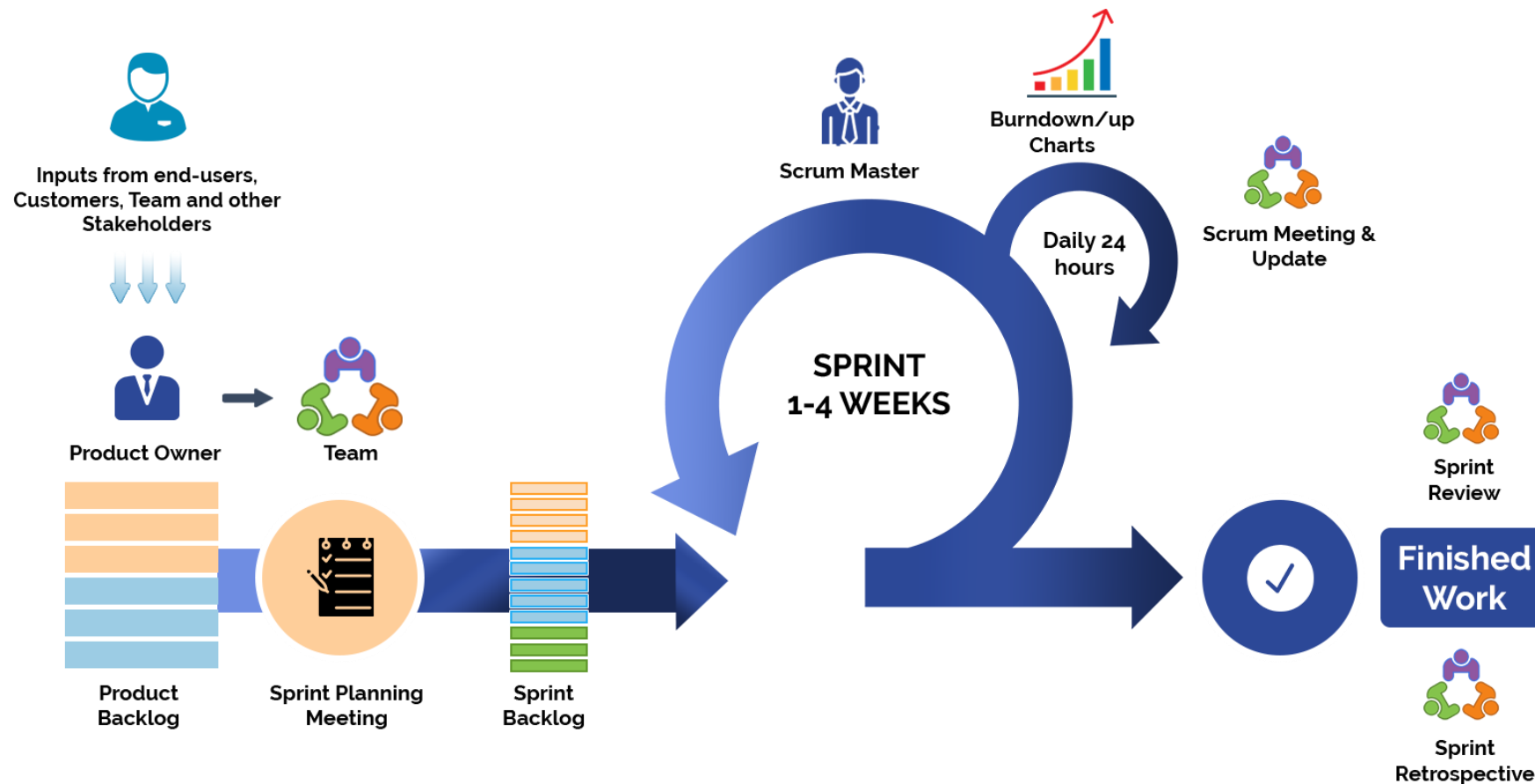
The team regularly thinks about how to become more effective, and then improve accordingly

Inverted Triangle Model



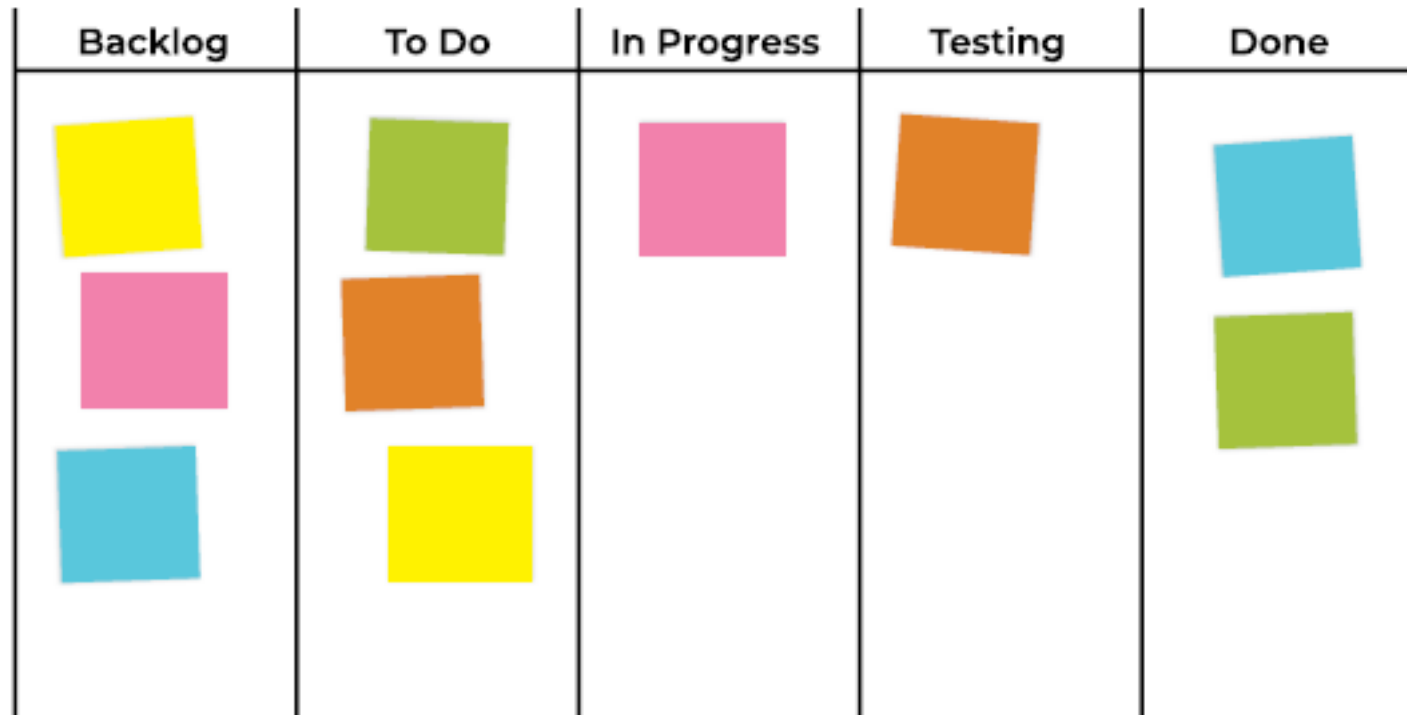
Overview of Agile frameworks

- Overview of Agile frameworks (Scrum)



Overview of Agile frameworks

- Overview of Agile frameworks (Kanban)



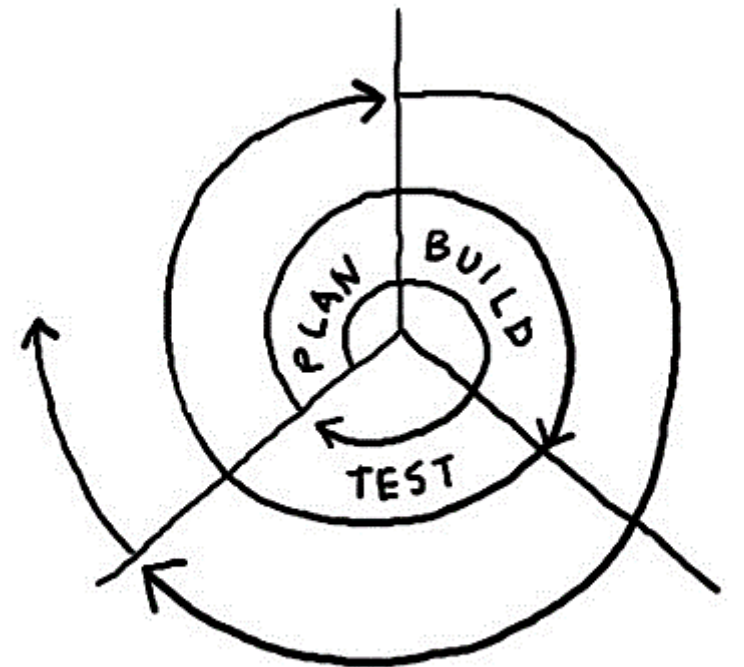
The role of feedback and iterations in managing agile project risks

- **Feedback:**

- Regular feedback from team members, stakeholders, and end-users helps identify potential risks early.
- Feedback loops in Agile methodologies important for continual improvement and risk adjustment.

- **Iterations:**

- The iterative processes (like sprints in Agile) facilitate ongoing risk evaluation and management.
- The ability to make small adjustments regularly, reducing the potential impact of risks.



ITERATIVE DEVELOPMENT

Example: "In a software development project, iterative testing and client feedback in early stages identified a critical compatibility issue, allowing the team to address the risk before deployment."

Identifying Risks in Agile Projects

Common types of risks in Agile projects

Techniques for early risk identification

- Daily stand-ups

- Sprint planning and retrospectives

Tools and practices to facilitate risk identification (e.g., risk burndown charts, user story mapping)

Common types of risks in Agile projects

Common Risks

- Scope Creep
- Resource Availability
- Technological Challenges
- Integration Issues
- Quality Control
- Stakeholder Engagement
- Communication Gaps
- Estimation Errors
- Team Dynamics
- Compliance Risks
- Financial Risks

Risks of Agile Misunderstanding

Misalignment with Agile Values:

Misaligned practices and expectations undermining Agile benefits.

Ineffective Practices:

Poorly implemented Agile processes due to misunderstanding.

Resistance to Change:

Hindrance in Agile adoption and effectiveness from resistance.

Poor Role Fulfillment:

Ineffective leadership impacting project execution.

Inadequate Risk Management:

Missed opportunities for timely risk mitigation.

Suboptimal Decision Making:

Rigid or poorly timed decisions from lack of dynamic understanding.

Decreased Team Morale:

Frustration and low morale from perceived chaos or unclear management.

Techniques for early risk identification

1. Daily Stand-Ups

- Facilitate quick feedback loops to catch and address issues before they escalate.
- Encourage team members to share blockers or concerns that may impact project timelines or deliverables.

2. Sprint Planning Meetings

- Use these meetings to anticipate potential risks for upcoming tasks and sprints.
- Engage the team in risk brainstorming sessions to leverage collective insights.

3. Retrospectives

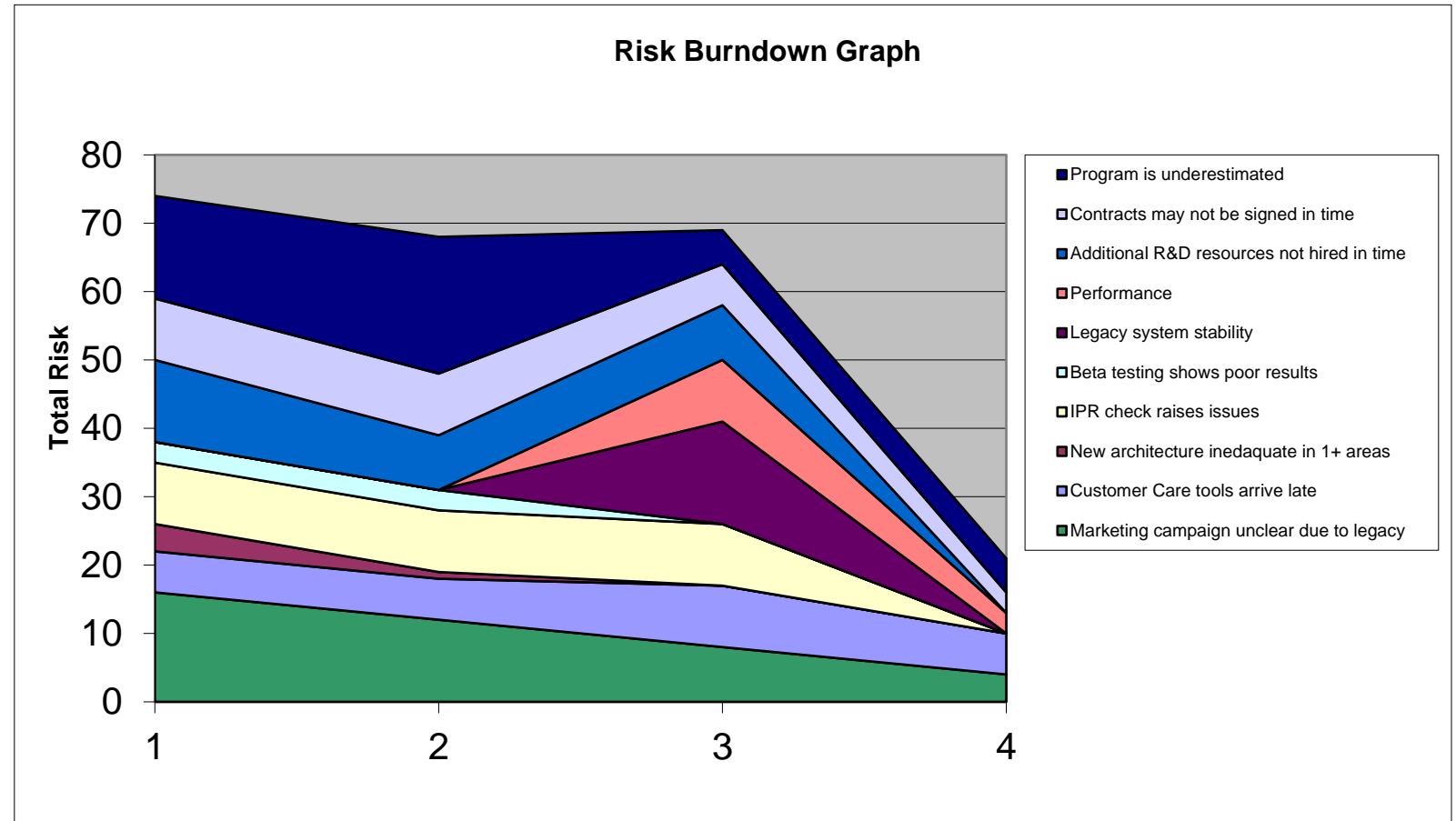
- Analyze completed sprints to identify what went wrong and why.
- Discuss potential risks that emerged and how they were handled, to improve risk handling in future sprints.



Techniques for early risk identification

4. Risk Burndown Charts

1. Visual tools to track identified risks and monitor their resolution over time.
2. Help teams see the progress in mitigating risks, adjusting strategies as needed.

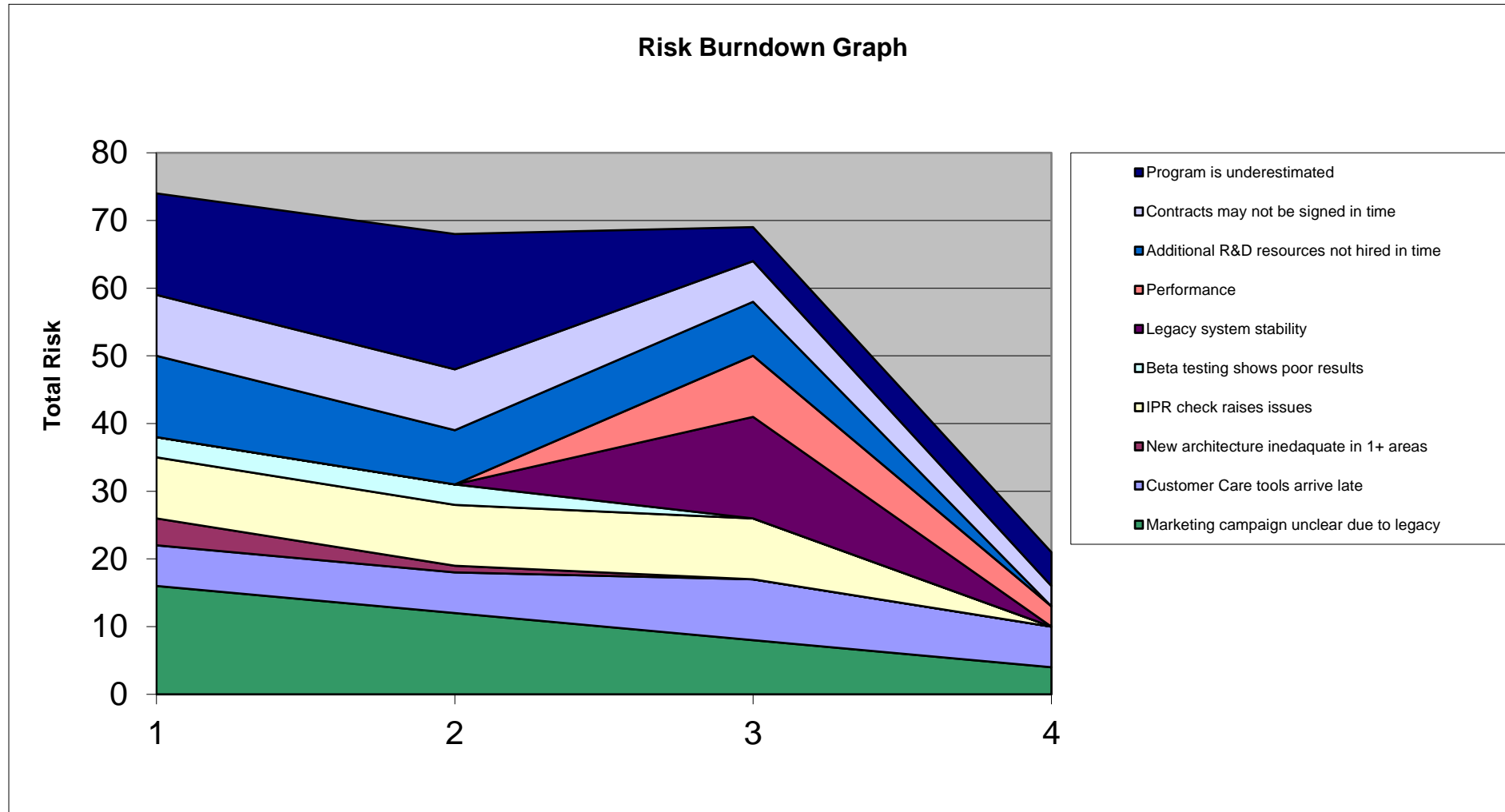


Risk Burn Down Graphs

- Progress of Risks

ID	Risk Title	January			February			March			April		
		I	P	Severity	I	P	Severity	I	P	Severity	I	P	Severity
1	Program is underestimated	5	3	15	5	4	20	5	1	5	5	1	5
2	Contracts may not be signed in time	3	3	9	3	3	9	3	2	6	3	1	3
3	Additional R&D resources not hired in time	4	3	12	4	2	8	4	2	8	4	0	0
4	Performance	0	0	0	0	0	0	3	3	9	3	1	3
5	Legacy system stability	0	0	0	0	0	0	5	3	15	0	0	0
6	Beta testing shows poor results	3	1	3	3	1	3	3	0	0	3	0	0
7	IPR check raises issues	3	3	9	3	3	9	3	3	9	3	0	0
8	New architecture inadequate in 1+ areas	2	2	4	1	1	1	1	0	0	1	0	0
9	Customer Care tools arrive late	3	2	6	3	2	6	3	3	9	3	2	6
10	Marketing campaign unclear due to legacy	4	4	16	4	3	12	4	2	8	4	1	4
				74			68			69			21

Risk Burn Down Graphs



Techniques for early risk identification

5. User Story Mapping

1. Create a visual representation of user stories and their dependencies.
2. Identify gaps or complexities in the project scope that could pose risks.



Responding to Risks in Agile

Agile strategies for risk mitigation

Risk-Adjusted Backlog

Adaptive planning and real-time decision making

Agile strategies for risk mitigation

Leveraging Flexibility and Speed for Effective Risk Management

1. Quick Responses

- **Immediate Action:** Agile emphasizes immediate response to risks as they are identified, minimizing potential impacts and leveraging opportunities for improvement.
- **Adaptability:** Agile's adaptability allows teams to pivot quickly when unexpected challenges arise, ensuring project continuity and stability.

2. Flexibility in Risk Management

- **Dynamic Environment:** Agile thrives in dynamic environments where changes are frequent. Flexibility in strategies and plans is paramount.
- **Continuous Improvement:** Embracing change and feedback to continuously refine processes and outcomes.

3. Strategies for Mitigating Risks

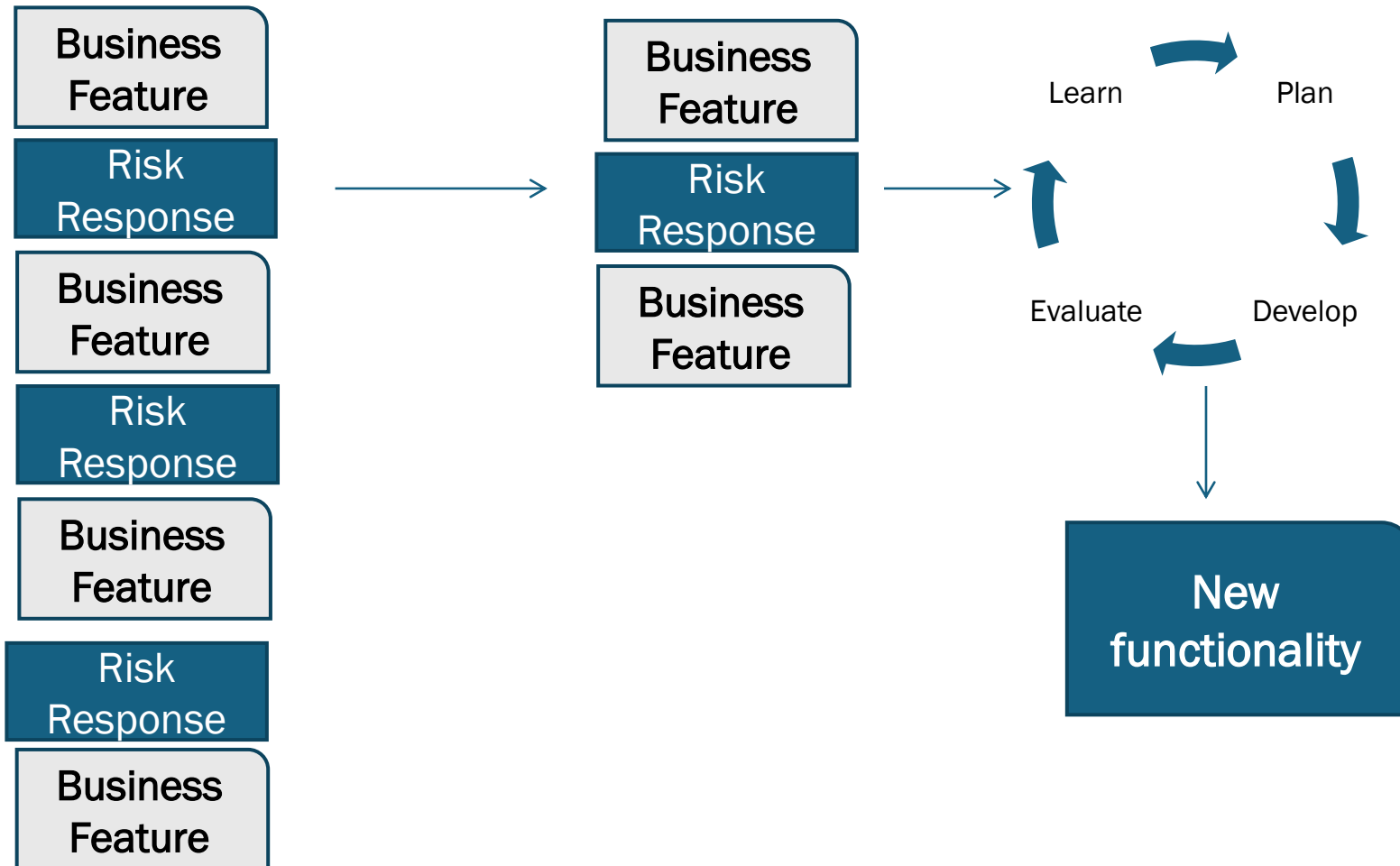
- **Incremental Changes:** Implementing small, manageable changes allows teams to assess impacts iteratively and adjust as necessary without overwhelming the project or the team.
- **Frequent Reassessments:** Regularly scheduled reviews and reassessments of the project's risk landscape to stay ahead of potential issues.
- **Risk Prioritization:** Continuously prioritizing risks based on their severity and likelihood of occurrence to focus efforts where they are most needed.

Prioritizing risks using a risk backlog

- Agile projects are driven by both business value and risk considerations.
- Work packages are selected based on their assigned business priorities and the presence of high-risk items in the prioritized feature list.
- Most teams effectively manage to rank requirements—such as stories, features, and use cases—by their potential business value and associated risk levels.

Risk-Adjusted Backlog

- Prioritized feature list Selected features



Risk-Adjusted Backlog

Prioritized Feature List with ROI

Prioritized requirements list

Requirements	Priority	Value
Requirement 1	Must	\$ 10,000
Requirement 2	Must	\$ 7000
Requirement 3	Should	\$ 5000
Requirement 4	Should	\$ 3000
Requirement 5	Should	\$ 1000
Requirement 6	Could	\$ 500

Prioritized Risk List, Ordered by Severity

Risk	Impact & Probability	Risk Value
Risk 1	5000, 50%	2500
Risk 2	3000, 40%	1200
Risk 3	2000, 50%	1000
Risk 4	2000, 40%	800
Risk 5	3000, 15%	600
Risk 6	1000, 50%	500

Risk-Adjusted Backlog

Prioritized risk list

Risk	Risk Value
Risk 1	2500
Risk 2	1200
Risk 3	1000
Risk 4	800
Risk 5	600
Risk 6	500

Prioritized requirements value

Requirements	Value
Requirement 1	\$ 10,000
Requirement 2	\$ 7000
Requirement 3	\$ 5000
Requirement 4	\$ 3000
Requirement 5	\$ 1000
Requirement 6	\$ 500

Risk adjusted backlog

Requirement 1
Risk 2 Action
Requirement 2
Requirement 3
Risk 3 Action
Requirement 4
Requirement 5
Risk 4 Action

Adaptive Planning and Real-Time Decision Making

- **Adaptive Planning in Agile**

- **Definition:** Adaptive planning is a flexible approach that allows teams to adjust their plans based on evolving project needs and new insights.
- **Process Overview:** Begin with a high-level plan that outlines the project goals and timelines. As each sprint or iteration concludes, the plan is revisited and refined based on feedback and results.
- **Benefits:** Enhances responsiveness to change, increases project relevance by aligning outputs with current business needs, and reduces the risk of project obsolescence.

Adaptive Planning and Real-Time Decision Making

- **Real-Time Decision Making**

- **Dynamic Environment:** Agile projects thrive in environments where decisions need to be made quickly and based on the most current data.
- **Techniques:**
 - **Daily Stand-ups.**
 - **Sprint Reviews and Retrospectives.**
- **Impact:** Allows for swift responses to challenges, ensuring that the project continuously aligns with client needs and market conditions.

Transforming Challenges into Opportunities

Turning Risks into Advantages

Proactive Risk Management Culture

Turning Risks into Advantages

💡 **Opportunity Mindset:** In Agile, risks are viewed not just as threats, but as opportunities for improvement and innovation.

💡 **Iterative Learning:** Each iteration provides a chance to learn from risks and adjust strategies, enhancing project outcomes.

A software development project encounters a new technological risk.



The team uses this as an opportunity to innovate, resulting in a more robust and advanced product.

During a marketing project, a sudden change in market trends poses a risk to the campaign's relevance.



The team quickly pivots, using the trend to their advantage and achieving greater engagement.

Proactive Risk Management Culture

- **Building Resilience in Agile Teams**
- **Importance of Proactivity**
 - **Anticipating Challenges:** Encourage teams to anticipate potential risks and develop contingency plans early in the project cycle.
 - **Continuous Improvement:** Emphasize the role of retrospectives in learning from past risks and strengthening future projects.
- **Encouraging Practices**
 - **Regular Risk Audits:** Implement routine audits of project processes to identify and mitigate risks before they escalate.
 - **Empowerment and Training:** Foster a culture where team members are empowered to identify and address risks, supported by ongoing training in risk management.



Actionable Insights and Best Practices .

Enhancing Risk Management in Agile Environments

- **Actionable Insights:**
 - **Embrace Flexibility:**
Agile teams must remain flexible, adjusting their plans and strategies in response to new risks and information.
 - **Early and Continuous Risk Identification:**
Regularly update and revisit the risk backlog to keep track of new and existing risks.
 - **Leverage Team Strengths:**
Utilize the diverse skills within Agile teams to address complex risks creatively and effectively.
- **Best Practices:**
 - **Regular Risk Reviews:**
Incorporate risk review sessions at the end of each iteration or sprint to assess and plan for known and emerging risks.
 - **Risk Response Strategies:**
Develop clear strategies for common and critical risks identified in the project planning phase.
 - **Stakeholder Engagement:**
Keep stakeholders informed and involved in the risk management process to ensure alignment and buy-in.

Conclusion

Conclusion

- **Agility and Adaptability:** Embrace flexibility to swiftly respond to risks and changes.
- **Continuous Risk Management:** Engage in ongoing risk identification through Agile practices such as daily stand-ups and sprint retrospectives.
- **Proactive Culture:** Foster a risk management culture that anticipates challenges and empowers team members.
- **Opportunities from Challenges:** Utilize Agile frameworks to transform risks into opportunities, enhancing outcomes and innovation.
- **Implementing Best Practices:** Regularly conduct risk reviews, develop clear strategies, and maintain stakeholder engagement for effective risk management.
- **Further Learning and Engagement:** Continuously improve skills through resources like books, training, and workshops.

Questions?

Free Learning Resources



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