Challenges of Agile Adoption and Leadership Roles in Agile Adoption Success

Rachel (Thu) Le

University of Washington

Abstract

The rapid development of technology and the increase of complexity in designing software systems in the past decade has caused the shift from traditional approach of Waterfall or life-cycle development model to Agile methodologies such as Scrum and Extreme Programming (XP). In many projects, Agile methods have shown to be successful and reduce wasted effort, time, money and the product is delivered sooner in frequent increments that are easily adapted to change. However, Agile brings the most success when it is used for small and individual teams. When adopting agile, larger scale companies with multiple teams, especially teams in geographically distributed sites often face many challenges that can ultimately lead to failure of the effort. In this paper, I present a literature review of the challenges, success factors of Agile transition in large organizations as well as leadership roles in its success. A total of eight papers regarding challenges, success factors and leadership roles in Agile adoption and scaling that are published in the past 5 years are examined. Most of the reports are based on interviews and surveys from agile adopters and practitioners which shows that there is currently insufficient effort to do thorough academic research about the topic. The most common challenges are human-related issues such as resistance to change due to misconceptions about Agile and wrong mindset, the difficulty of creating self-organizing teams and the lack of management support. These multi-dimensional and interlinked challenges can potentially be addressed starting from leader roles in teams and organizations.

*Keywords: agile transition, agile adoption challenges, agile leadership*

**INTRODUCTION**

Software Development Life Cycle (SDLC), with its earliest and most well-known version Waterfall model, is a framework for developing software that helps deliver software in one single project by going through multiple sequential development stages such as requirement analysis, design, implementation, testing, deployment and maintenance. On the other hand, agile approach with its most popular versions as Scrum and XP focuses on building products by repetitions of the same development stages in multiple product increments in a shorter period of time. SDLC requires upfront specified requirements that are hardly adjusted once the development cycle starts while agile approach provides flexibility by allowing changes to be introduced during or in between iterations. The customer participation and feedback during development that is absent in SDLC also contributes to more successful and high-quality products as it better reflects customer needs and visions. Last but not least, the early discovery of defects and adaptability to changes in product and product direction by doing smaller and more frequent development iterations help deliver the product with high value to customers while lowering cost, time and effort.

Due to these advantages of agile, SDLC is losing its popularity and more and more companies are adopting agile for developing software products. Startup companies with small teams are well-known for using agile methodologies such as Scrum. However, larger and more established organizations face many challenges when adopting agile to fit their scale. Compared to large scale companies that utilize agile since starting up, ones with long history of using SDLC face more difficulty due to existing structure that is often in conflict with agile values and principles.

*Summarize challenges, success factors and what leaders can do for successful agile adoption*

Agile adoption comes with the change in people’s perception about agile values and processes, with understanding of agile values as the most important aspect before adopting agile processes and tools.

**CHALLENGES**

**SUCCESS FACTORS**

* based on the list in challenges
* provide more support
* tailor coaching approach based on group developmental stage (initially more hands-on direction, later on prompting, less help; when team is mature, they can function and make decision by themselves): by Scrum Master and Product Owner
* encourage development of good team norms, build strong team with trust and transparency
* provide a safe environment (to be creative, take risk, fail safe) to adopt agile

**LEADERSHIP ROLES**

* Based on factors for successful agile adoption above
* Don’t overemphasize framework. When adopting Agile, tailor the process to company or team-specific needs while maintaining core Agile principles
* Treat challenges in context instead of in isolation as they are usually interlinked
* Focus on not just adopting agile but sustaining agile

1. Scrum Master

2. Product Owner

3. Team members (they are leaders too!):

* Use “Turn The Ship Around book” reference
* Develop culture of collective responsibility, team ownership of work/product
* Encourage team members to discuss, collaborate and make decision without too much oversight and guidance from the main leader

**CONCLUSION**

Agile adoption often meets skepticism, resistance and challenges. However, with the help and support of agile practitioners, management and collaborative effort from the team, the transition can be successful and long lasting

References

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