

Agile portfolio management: An empirical perspective on the practice in use



Christoph J Stettina, Jeannette Hörz, *International Journal of Project Management* 33 (2015) p. 140–152

KEYWORDS

- Agile project management
- Agile portfolio management
- Domains
- Scrum

Article highlight:

This research examines the application of agile project management to project portfolios within large organisations. Qualitative data was drawn from 14 large, northern European, organisations operating in the financial, telecommunications and government sectors. The information was analysed, with reference to existing theoretical frameworks, to identify the characteristics, challenges and benefits of an agile approach in practice.

What does the paper cover?

Agile project management originated in the management of software projects and is typically a bottom-up approach. Teams working in this way are led by the requirements of the projects themselves and, developing considerable autonomy, bring them to completion through a process of regular communication, iterative and overlapping practices, and a flexible approach to workload and resources. This paper looks at what happens when

an organisation seeks to apply an agile approach more widely. It examines how agile approaches interface with more traditional methods of project portfolio management (PPM) and identifies both the challenges and the benefits of the agile approach.

Methodology:

Taking as their reference points three frameworks developed since 2007 – by D Leffingwell, J Krebs and J Vähäniitty et al., the authors conducted an empirical study to explore how agile methods work in practice.

They obtained data from 14 organisations – all with more than 250 employees, at least one IT project portfolio and at least three software development teams – which were already applying agile methods. The organisations had differing structures, sectors (financial, governmental and telecommunications) and locations (the Netherlands, Germany and Sweden) and had been applying agile methods for different lengths of time (up to 10 years). Collectively, they yielded 30 candidates at different levels of management who provided around 1,600 hours of recorded commentary, obtained through structured interviews.

The candidates' comments were classified under four broad thematic categories: process, people, organisation and technology. The largest and most complex category was process, with which a number of challenges and benefits were associated.

Research findings:

The research analysis looked at the application of agile methods across four 'domains of practice' in the management structure, from grassroots project management (operations), up through portfolio management (prioritisation and coordination), to the senior level (strategy).

Projects using the agile approach were found to make use of iterative feedback practices, such as regular and frequent stand-up meetings for timely communication and adaptation, and they employed a 'backlog' technique, whereby self-organised and largely autonomous teams 'pulled' their work from a list prioritised by management at portfolio level.

At the potentially more complex level of PPM, it can be difficult to splice established methods with more agile approaches. To resolve this tension, some organisations had developed a hybrid approach, for example combining the traditional PPM method PRINCE2 with the iterative agile Scrum framework, or with their own framework. One organisation used 'Scrumban', a hybrid of Scrum with the Japanese-originating Kanban approach.

At portfolio level, practices perceived as agile included scaled-up versions of some project-level techniques, such as 'strategic backlogs', frequent direct communication and collaboration between teams (for example, software engineers collaborating with system engineers when rolling out new software), and frequent portfolio reviews (in recognition that an annual review cycle is insufficient to adapt to time-sensitive demands). Other potentially agile practices included having a single portfolio (for a more integrated approach to projects); grouping additional initiatives within a portfolio (to achieve transparency and avoid conflicting demands on resources – or 'invisible' projects that drain resources); and maintaining dedicated project teams for software development (to enable continuity and efficient resource allocation). 'We assign work to teams, not teams to work', said one interviewee.

Challenges in the implementation of agile processes included difficulty in aligning them with existing processes, lack of commitment at senior level, and the need for a different approach to resource allocation (fewer projects at a time, enabling greater focus). These, however, were significantly outweighed by the advantages, which included greater alignment to customer needs, greater transparency for planning purposes, and improved cooperation and efficiency.

Conclusions:

In accordance with the literature, the many benefits of implementing agile processes included greater alignment to customer needs, greater transparency for planning purposes, and improved cooperation and efficiency. Closer interaction across management domains was perceived, by contributors to the study, as the biggest benefit of agile working. However, in relation to the strategic domain, the 'agile practice' of strategic commitment was consistently absent or lacking. Some senior managers appeared to have misgivings about greater autonomy at grassroots level, and in 13 of the organisations agile approaches were not treated as a matter of strategic importance. Interviewees with positive experiences of agile methods perceived lack of strategic commitment as the main stumbling block.

Significance of the research:

This study points at certain themes for ongoing research: the best governance structure for an agile organisation, the role of strategic management, contract design, and how to dovetail agile practices with existing processes and across different functional roles. Aside from software, it would be fruitful to compare these findings with portfolio management experiences in the related engineering sector.

Comments from the author:

Since the publication of the original article we continue to work in this field, especially in relation to: (1) oversight and reporting, (2) connection to innovation practices, and (3) implementation. Ongoing work includes:

Stettina, C J, and Schoemaker, L (2018, May). Reporting in agile portfolio management: routines, metrics and artefacts to maintain an effective oversight, *Proceedings of the 19th International Conference on Software Development: Agile processes in software engineering and extreme programming* (XP 2018). Porto, Portugal, May 21–25, 2018 (vol 314, p 199). Springer. link.springer.com/chapter/10.1007/978-3-319-91602-6_14

Agile portfolio management for a fast-paced world, Accenture Insights [accenture-insights.nl/en-us/articles/agile-portfolio-management-for-a-fast-paced-world](https://www.accenture-insights.nl/en-us/articles/agile-portfolio-management-for-a-fast-paced-world)

Agile portfolio management for a fast-paced world, PMI Cyprus conference, 2018 [slideshare.net/mobile/ChristophJohannStett/agile-portfolio-management-pmi-cyprus-2018](https://www.slideshare.net/mobile/ChristophJohannStett/agile-portfolio-management-pmi-cyprus-2018)

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Complete article

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Glossary:

Agile project management:

An approach to project management originating in the software industry, characterised by feedback loops, iterative processes and a bottom-up approach to workflows.

Scrum:

An approach to software projects characterised by repeated overlapping activities that take the project towards its goal – analogous to the iterative phases of a game of rugby (consolidating progress in the scrum and 'recycling' the ball back into play).



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