Barriers and Solutions for Scaled Agile Projects Adoption

TREO Talk Paper

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Abstract

The Agile Manifesto, which was proposed in 2001 (Fowler & Highsmith, 2001), led to emergence of several popular methods such as Scrum, XP, and Kanban (Larman, 2004). However, for about a decade, the methods were applied primarily to small projects (Dybå & Dingsøyr, 2008). Leffingwell (2010) proposed that the agile methods could be scaled to large-scale development projects A 2015 report (Version, 2015) confirmed that agile methods are being widely deployed by medium and large companies for large projects. Because agile methods were initially considered relevant for small projects (Boehm & Turner, 2004), the adoption of scaled agile methods for large projects is an interesting research question.

A recent literature survey based on 42 published industrial cases (Dikert, Paasivaara, & Lassenius, 2016) reports 35 challenges grouped into nine categories and 29 success factors, grouped into eleven categories; however, there is no indication if there is an underlying theory or theoretical framework that can connect the categories and reveal the underlying phenomenon. The authors admit that 90% of the included papers were experience reports that were not based on sound academic research; yet, the challenges and success factors identified serve as a good starting point for conducting further research to improve the rigor.

The research proposed in this note is intended to carry out the next steps that can eventually lead to theory development. The immediate step is to come up with an initial theoretical framework that presents a parsimonious rendition of the barriers and solution factors. An insight into the strategies employed to achieve the change process will also be useful. A grounded-theory based qualitative study is being proposed to understand the transformation and adoption process when applying agile methods to larger projects. By interviewing professionals who have managed scaled agile projects, the study can extract and link the factors in an initial model, which can later be evaluated in a separate, quantitative study.

It is proposed that about eight to ten interviews will be conducted. Each interview will be recorded and transcribed in English. The data will be coded, and the essential categories and subcategories will be derived for the barriers and solutions for scaled agile projects. The relative importance of the factors will be examined in a separate, survey-based structural equation modeling study.

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