Evaluating Scrum for Managing Indra's Automated Vote-counting System Implementation

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Keywords

Abstract

In a changing world, project management becomes more and more important for developing critical IT tools and applications. IT Practitioners and students need ways to effectively learn and evaluate different approaches to managing projects, in order to select the most effective approach in a particular situation.

This paper provides a critical application of the Scrum project management framework to an IT project that used a traditional project management approach, providing an applied comparison of the two approaches for IT practitioners interested in Scrum. It analyses Norway's election modernization project in 2011, which aimed to improve speed, accuracy, efficiency, and customer satisfaction. Indra's used a revised PMBOK methodology known as the Indra Project Management Methodology (IPMM) to manage this project. IPMM improved their approach on the project as it gave them a birds-eye view of the entire setting, something which their previous methodology was not able to do. However, a number of issues were still exposed. Indra had problems satisfying stakeholders, the sudden surge of new resources had a potential impact to the timeline, team meetings were scattered and detached with one another, training and testing sessions were inefficient, and the mode of facilitating transparency was unreliable.

A number of these issues could be resolved by using practices from Scrum. The Sprint Review provides more freedom and transparency for stakeholders to share their thoughts and see actual progress; the Daily Scrum makes team meetings more open and involved; and Scrum in general could be a viable replacement for the project management approach due to its flexibility and adaptability, reduced costs, speeding up deliverables, and ultimately increasing the confidence level of the entire team. However, this does not mean that Scrum can readily take IPMM's place as it requires adequate expertise by team members, does not involve clear scope definition, and does not include cost management.

Other project management approaches could also improve this project: Prince2's strength in documentation, Kanban's way of expanding visibility through the Kanban Board, Extreme Programming's testing regulations, and Six Sigma's DFSS methodology for early impact visualization are all plausible – potentially making the management of the project more robust, versatile, and ultimately improving the outcome for everyone.

This type of analysis is a useful learning approach in theory, as here, or in practice. Students with no IT project experience report a deeper understanding of real-world issues and how the methodologies might work – or not – in practice, and students who analyse projects that they have been involved in report valuable insights which can improve future project outcomes. Educator observations are that this sort of comparative analysis encourages closer consideration of the theoretical advantages and disadvantages of a specific methodology, which would also be valuable for practitioners considering a new approach, before organisational resources are committed?