Management Challenges in Product Configuration Projects

Shafiee, Sara; Wautelet, Yves; Hvam, Lars

Published in:
Proceedings of the International Conference on Industrial Engineering and Operations Management

Publication date:
2018

Document Version
Publisher's PDF, also known as Version of record

Link back to DTU Orbit

Citation (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.
Management Challenges in Product Configuration Projects

Sara Shafiee  
Department of Mechanical Engineering  
Technical University of Denmark  
2800 Kgs. Lyngby, Denmark  
sashaf@dtu.dk

Yves Wautelet  
Centre for Information Management  
KU Leuven, Warmoesberg, 26  
1000 Brussels, Belgium  
yves.wautelet@kuleuven.be

Lars Hvam  
Department of Management Engineering  
Technical University of Denmark  
2800 Kgs. Lyngby, Denmark  
lahv@dtu.dk

Abstract

Product Configuration Systems (PCS) are considered types of IT systems that enable companies to develop product alternatives to facilitate the sales and production processes automation. Based on literature, there are various challenges reported on managing different phases of PCS projects. Different tools and solutions have been suggested and applied for solving these challenges especially at the level of the project management process. Moreover, various software project management methods are used, in order to get high quality PCS, such as Rational Unified Process (RUP). The changes from Plan-driven methodologies towards a pure agile way of working is a challenge that comes with both benefits and risks. In this paper, first we will investigate about the PCS projects using the RUP method and then we will discuss PCS projects cases managed and launch using Agile principles. We use a comparative qualitative explanatory case study method on multiple data sources: documentation, workshops and participant observation. We find that changing from RUP to Scrum brings both positive effects and challenges to the organization.

Keywords
Product Configuration System (PCS), Project Management, Rational Unified Process (RUP), Agile

Biographies

Sara Shafiee is a postdoctoral research fellow at the Technical University of Denmark, Department of Mechanical Engineering. She has the experience of working in Engineer-To-Order companies as IT Project Manager and Senior Business Consultant and developing and maintaining more than 10 Product Configuration Systems. Her research is focused on Product Configuration systems challenges for complicated highly engineered products. She has a series of papers about product configuration projects scoping, documentation and modeling, knowledge management, IT tools integrations in international conferences and journals.

© IEOM Society International
Yves Wautelet is an Assistant Professor in Information Systems at KU Leuven, Belgium and invited professor at Université de Namur, Belgium. He formerly has been an IT project manager and a Postdoc Fellow at Université catholique de Louvain, Belgium. He completed a Ph.D. thesis focusing on project and risk management issues in large enterprise software design. Yves also holds a Master of Management Sciences as well as a Master of Information Systems. His research interests include various aspects of software engineering and enterprise information systems such as life-cycle management, requirements engineering, IT governance, agent-oriented development and e-learning. He also focuses on the application of his research into industrial environments.

Lars Hvam is Professor at the Technical University of Denmark. He has been working on product configuration for more than 15 years as a teacher, a researcher and as consultant for more than 15 configuration projects in large industrial companies. He has supervised eight Ph.D. projects on the construction and application of configuration systems and has been the project leader for four large research projects on product configuration. Lars Hvam is also the founder and current chairman of the Product Modelling Association (www.productmodels.org), whose aim is to disseminate knowledge of the possibilities offered by product configuration.