

Factors that Boost and Hinder the Transition from Traditional to Self-managed Teams

A Mapping Study Review

Background: Considering the required speed of organizational transformations to keep software development competitive, transitions based on a trial-and-error approach are less and less acceptable. Even so, due to the lack of a systematic process and knowledge capable of guiding the transition of traditional teams to self-managed teams (SMT) many companies have faced difficulties in completing this mission, becoming dependent on individual efforts with unpredictable results. **Objective:** This work aims to analyze available scientific publications in order to characterize the critical factors related to the transition from traditional teams to SMT in a software development context. **Method:** We used the Scopus scientific database to conducted a Mapping Study Review over its available publications in the last 5.25 years. **Results:** A total of 28 publications were accepted in this review, which helped identify the main factors that boost and hinder the transition from traditional to self-managed teams. **Conclusion:** Although the number of research about SMT has increased in last years, none of them has tried to understand how the transition from traditional team to SMT happens. Our findings show that this transition cannot be seen as an isolated process with immediate results. The critical factors and categories presented in this study will help those who want to carry out the transition of their teams to SMT in the software development industry.

Additional Key Words and Phrases: self-managed teams, self-organized teams, software development teams, software engineering

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1 APPENDICES

1.1 List of selected papers

Code	Title	Year	Authors
P01	Overcoming cultural barriers to being agile in distributed teams	2021	Šmite, Darja and Moe, Nils Brede and Gonzalez-Huerta, Javier
P02	Initiated and received task interdependence and distributed team performance: the mediating roles of different forms of role clarity	2022	Wong, Sut I and Van Gils, Suzanne
P03	Scrum anti-patterns, team performance and responsibility	2021	Talpová, Sylva Žáková and Čtvrtníková, Tereza
P04	Factors Affecting Task Allocation and Coordination in Distributed Agile Software Development	2021	Nundlall, Chitra and Nagowah, Soulakshmee D
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Manuscript submitted to ACM

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First column	Second column	Third column	
P05	An architecture governance approach for Agile development by tailoring the Spotify model	2021	Salameh, Abdallah and Bass, Lian M
P06	Organizational implications of agile adoption: a case study from the public sector	2021	Mohagheghi, Parastoo and Lassenius, Casper
P07	Building high performance teams	2020	Pfutzenreuter, Thais Carreira and Lima, Edson Pinheiro and Frega, José Roberto
P08	The Relationship between Agile Practices and A Team's Maturity	2021	Moyo, Albert and Khoza, Luc
P09	A Quantitative Exploration of the 9-Factor Theory: Distribution of Leadership Roles Between Scrum Master and Agile Team	2020	Spiegler, Simone V and Graot, Daniel and Heinecke, Christoph and Wagner, Stefan
P10	Enabling team autonomy in a large public organization	2020	Bakken, Ingrid Omang
P11	Evaluating the Transition for Self-Managed Teams through Analysis of Roles in Agile Product Development Process in a Technology-Based Startup	2020	de Souza, Gustavo and Costa, Melo, Isotilia and Capaldo Aral, Daniel
P12	In for a Penny, in for a Pound? A Lifecycle Model for Agile Teams	2020	Diegmann, Phil and Drees, Tim and Rosenkranz, Christof
P13	It's Not Easy Being Agile: Unpacking Paradoxes in Agile Environments	2020	Horlach, Bettina and Drechsler, Andreas
P14	Approaches to Business Analysis in Scrum at StepStone—Case Study	2020	Forowicz, Piotr
P15	Scrum without a scrum master	2019	Ereiz, Zoran and Mušić, Den
P16	Coexisting Plan-driven and Agile Methods: How Tensions Emerge and Are Resolved	2019	Laux, Isabel and Kranz, Joha
P17	Agile Autonomous Teams in Complex Organizations	2019	Mikalsen, Marius and Næset, Magne and Reime, Erik Andre and Solem, Anniken
P18	Boosting agile by using user-centered design and lean startup: a case study of the adoption of the combined approach in software development	2019	Signoretti, Ingrid and Marczyk, Sabrina and Salerno, Larissa and de Lara, Augusto and Bortos, Ricardo
P19	Principles of reforming an agile-compliant performance appraisal	2019	Rejab, Mawarny Md and Omar, Mazni and Ahmad, Mazida and Hassan, Syahida
P20	The influence of culture and structure on autonomous teams in established companies	2019	Spiegler, Simone V and Heinecke, Christoph and Wagner, Stefan
P21	Becoming agile: a grounded theory of agile transitions in practice	2017	Hoda, Rashina and Noble, Jam

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P22	Large-scale agile transformation at Ericsson: a case study	2018	Paasivaara, Maria and Behm, Benjamin and Lassenius, Casper and Hallikainen, Minna
P23	Transition to Agile method without Agile-compliant performance appraisal?	2018	Rejab, Mawarny Md and Omar, Mazni and Ahmad, Mazida and Hassan, Syahida
P24	Analysis of the changes in communication and social interactions during the transformation of a traditional team into an agile team	2018	Espinosa-Curiel, Ismael Edrein and Rodríguez-Jacobo, Josefina and Vázquez-Alfaro, Erika and Fernández-Zepeda, José Alberto and Fajardo-Delgado, Daniel
P25	From Scrum to Agile: a journey to tackle the challenges of distributed development in an Agile team	2018	Lous, Pernille and Tell, Paolo and Michelsen, Christian Bo and Dittrich, Yvonne and Ebdrup, Allan
P26	How autonomy emerges as agile cross-functional teams mature	2018	Lundene, Kjell and Mohagheghi, Parastoo
P27	Enabling autonomous teams in large-scale agile through architectural principles	2018	Gundelsby, Jan Henrik
P28	Group development and group maturity when building agile teams: A qualitative and quantitative investigation at eight large companies	2017	Gren, Lucas and Torkar, Richard and Feldt, Robert

Table 1. List of selected publications

Continent	Distinct countries	Qty	%
Africa	2 countries	2	7%
Asia	1 country	2	7%
Oceania	2 countries	2	7%
North America	none	0	0%
Central America	1 country	1	3.5%
South America	2 countries	4	14.3%
Europe	9 countries	20	71.4%

Table 2. Frequency of publications around the world