

# MATURITY MODEL OF SCRUM TEAM'S COMPETENCIES IN GLOBAL SOFTWARE DEVELOPMENT

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## Abstract

Maturity models guide the achievement of competency maturity levels. This study aims to develop a competency maturity model for Scrum team members in Global Software Development (GSD environments. Each Scrum role, such as Product Owner, Scrum Master, and Developers, has a unique set of competencies at each maturity level. We developed the maturity model by conducting in-depth interviews with global Scrum practitioners. We also conducted a comparative study to determine the most appropriate maturity model reference. The maturity model's validation uses expert judgment involving experts in academia and industry. The maturity model in this study is inspired by CMMI 2.0, while Scrum and Agile Maturity models inform the maturity levels. Results reveal that each maturity level consists of a set of practice areas in which each practice area may exist in several maturity levels. The practice area contains a set of competencies with an arrangement of capability levels based on the standards by adopting the Skills Framework for the Information Age (SFIA) and the European e-Competence Framework (e-CF). In conclusion, the resulting maturity model is helpful as a guide for increasing competence gradually and measurably. This model can also develop assessment tools to measure competency maturity levels.

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