

Adoption of Agile Scaling Practices in Globally Distributed Software Development Teams: A Systematic Literature Review

Sajani Gandhira^{1*}, Ruwan Wickramarachchi²

¹*Department of Industrial Management, University of Kelaniya, Kelaniya, Sri Lanka,
sajanahepathirana@gmail.com*

²*Department of Industrial Management, University of Kelaniya, Kelaniya, Sri Lanka,
ruwan@kln.ac.lk*

The increasing globalization of the software industry has led organizations to adopt distributed team models, leveraging global talent pools and technological advancements. Concurrently, Agile methodologies have become a framework for managing software development projects, offering flexibility and responsiveness. However, Agile scaling practices within Globally Distributed Software Development (GDSD) environments present unique challenges. This paper aims to identify the factors influencing the adoption of Agile scaling practices in the GDSD context. A systematic literature review (SLR) was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology. The review analyzed 47 primary studies from databases and identified eight key factors. Based on the literature analysis, a conceptual model was developed illustrating the relationship between identified factors and the adoption of Agile scaling in GDSD. This model can serve as a framework for organizations to scale Agile methodologies in distributed environments effectively. The study's insights provide a valuable foundation for organizations aiming to implement Agile scaling practices in the GDSD environment successfully.

Keywords: *Agile practices with large teams, Agile scaling adoption, Distributed software development, Systematic review*