Chapter 11
Structural Model to Evaluate the Remote Work in the Software Industry

K. Laxmi Narayanamma
Institute of Aeronautical Engineering, Hyderabad, India

Amandeep Nagpal
Lovely Professional University, Phagwara, India

S. Ahmed
Hilla University College, Babylon, Iraq

Gottipati Venkata Rambabu
MLR Institute of Technology, Hyderabad, India

S. Govinda Rao
GRIET, Hyderabad, India

ABSTRACT

In recent times, remote work has gained popularity as an acceptable substitute for working in a physical office, especially for IT professionals in software development companies. However, remote working presents significant challenges. Individual competencies and an enabling work environment, which includes a dependable internet connection, are essential. This research aims to analyse the influence of remote work on Scrum software development. The questionnaire survey mostly used pre-existing and tested measures. A total of 316 replies were received from those

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practising scrum. The data were analysed by SmartPLS version 3.0 and PLS-SEM study, which included conducting tests on both the inner and outer models. The structural model demonstrated a satisfactory fit, as shown by the standardised root mean square residual (SRMR) value of 0.073 and the normed fit index (NFI) value of 0.714.

1. INTRODUCTION

As part of a work flexibility plan (Blaschke, 2010), workers have the option to work remotely (Alam, M. T., & Taluja, R. 2023), April which means they may do their official tasks and responsibilities from a designated location other than their regular office (Hazela, B., & Tamrakar, A. K. (2023). Particularly in software development organisations (Shamsi, I. H. 2023), remote work has grown in popularity in recent years as an alternative to being physically present in the workplace (Baloch, D. M. 2023). The benefits of working remotely, such as less commute time and more time with loved ones (O'Reilly, C. A. 1996) are not without their challenges. To achieve success in remote work (Rueden, C. T 2017) it is essential to possess certain personal competencies (Ponikowski, P., 2016) such as proficiently managing one's own time. A suitable workplace and a reliable internet connection are needed (Ulrich, K. 1995). In a case study on remote work preparedness conducted by Dell Technologies in 2021, it was found that 9 out of 11 workers in India are at least somewhat ready for working remotely over the longterm while being fully prepared. The average speed of the (Hayes, R. M. 1966). is 26.10 Mbps, which is below the benchmark compared to other nations, according to OOKLA statistics (Islam 2015)

The advent of Agile Scrum approaches in the last few decades of the development of software has altered both the way individuals approach and complete their jobs (Tao, F., Zhang 2019), as well as how businesses promote certain behaviours among their staff . With 68% of the 1,384 survey takers using the Scrum framework to create software for their companies, Scrum dominates the agile methodology landscape, as shown in the 16th Annual State of Agile report. They find Scrum useful because it helps them break down large projects into smaller, more manageable "user stories" and then displays those stories on a workflow diagram. In addition, compared to projects that use more conventional methods, those that use Scrum have a success rate that is 61% higher. Because of its reputation for being both successful and easy to adopt, the Scrum methodology is widely used by software development organisations in India. On the other hand, many businesses that implement Scrum principles in a remote work setting encounter unique difficulties as individuals as well as teams, including unspecified or inadequate working hours, unfinished or inadequate facilities, demotivation, poor teamwork, and poor communication. So, the

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