

**FACTORS AFFECTING THE IMPLEMENTATION OF SCRUM
RISK MANAGEMENT PRACTICES IN SRI LANKAN
SOFTWARE INDUSTRY**

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DECLARATION

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ABSTRACT

The Software development industry is a leading industry in the world today. The success rate of software projects is highly dependent on the approaches used for managing them. There are multiple well-known software project management methodologies available. Agile Scrum is identified as the most commonly used project management approach in the current industry as it is capable of easily adapting to the changing business requirements. As a result of that, there is a rising trend in using Scrum as the project management approach in many software development projects.

The Scrum framework is a process that focuses more on customer satisfaction through collaboration and communication. There fore, Scrum is an approach with some informal characteristics, compared to the other project management methodologies.

Risk Management is key areas that most impact the success rate of Software development projects. Risk Management defines the ability to manage the project seamlessly in different situations. The Scrum framework does not clearly define any risk management capabilities in its' theories. The Scrum authors introduce Scrum as a risk driven approach that does not require any explicit risk management mechanisms. Based on that statement many studies has been taken place that proves the Scrum has inbuilt capabilities to manage risks in software projects. However, the software projects which follow Scrum still fails due to the inappropriate application of those risk management capabilities.

Therefore, this research aims to investigate the factors that are causing the implementation of those inbuilt risk management capabilities in the real-world context. To fulfill the aim of the research, based on a broad review of literature and thoughts of experienced Scrum users, a few factors were identified that are most impacting the successful implementation of risk management practices in Scrum projects such as customer interaction, team readiness, communication, organizational culture, and process readiness. A theoretical model and hypotheses were developed based on the factors identified. The hypothesized model was tested using some statistical techniques using the survey data collected from the software professionals with some insight about Scrum. The research findings reveal that team readiness, customer interaction, communication, have a high impact on the successful implementation of risk management practices while process readiness and organizational culture have a low impact on the implementation of risk management in Scrum.

Keywords: Agile, Risk Management practices, Scrum

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LIST OF ABBREVIATIONS

ANOVA	-	ANalysis Of VAriance
CSV	-	Project Management
IT	-	Software Development Life Cycle
PM	-	Project Management
PMP	-	Project Management professional
QA	-	Quality Assuarance
SDLC	-	Software Development Life Cycle