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Framework of Goal-driven Risk Management in Software Development Projects Using the Socio-technical Systems Approach

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Abstract

Previous studies have identified the influence of goal agreement on requirement elicitation in software projects, but they have not addressed how it influences risks in projects. The purpose of this study is to examine the influence of goal identification and agreement on software project risks. With socio-technical systems theory as the backdrop, we used a goal-oriented perspective to understand how the social subsystem influences the technical subsystem of a software development project. In an empirical study with 411 responses from software project developers and managers in India and using structural equation modelling, the causal linkages between goal orientation and project risk variables have been examined. The results indicated that the early adoption of goal-driven risk management reduces the social context risks which, in turn, reduces the project management risk. The study also revealed that the product artefact is independent of whether the system was completed within budget and schedule. To design the risk management strategy, project managers should consider the relationship between social context risk and project management risk and the implications of these relationships on project performance.

Keywords

Goal oriented, project management, project performance, risk, risk management, social risk, project management risk

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