Risk Management Methods Analysis for Software Development

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Source Information	Carlos Eduardo Sanches da Silva, 2019	Alankrita Aggarwal, 2021	Breno Gontijo Tavares, 2020	Mandira Roy, 2021
Research topic/question	*Risk management analysis in Scrum software projects*	*Performance-Aware Approach for Software Risk Management Using Random Forest Algorithm*	*A Risk Management Tool for Agile Software Development*	*Requirement-oriented risk management for incremental software development*
Methodology	• Metode Agile • Metode Scrum	• Metode Agile • Random Forest Algorithm	• Metode Agile • RM4Am	• Metode Agile • Interaksi non fungsional (NFR) dan fungsional (FR)
Limitations	• Proyek perangkat lunak • Dengan minimal 1500 jam untuk setiap proyek.	• Proyek perangkat lunak • Pengembangan arsitektur baru	• Proyek perangkat lunak • Pertama tanpa alat Rm4Am dan kemudian dengan alat Rm4Am	• Proyek perangkat lunak • Perangkat lunak tambahan (ISD), interaksi non fungsional (NFR) dan fungsional (FR)
Findings	• Ada peningkatan jumlah proyek perangkat lunak.	• Prediksi dan audit resiko-resiko proyek perangkat lunak menggunakan pendekatan Random Forest Algorithm ditemukan cukup efektif sesuai modul yang disajikan.	• Penggunaan RM4Am meningkatkan skor respons risiko rata-rata sebesar 49%, RM4Am meningkatkan efektivitas perencanaan respons risiko	• Nilai dampak risiko kuantitatif yang disediakan dalam kerangka dihasilkan menggunakan nilai atribut NFR yang berbeda, yaitu bobot ketergantungan, konflik, dan nilai prioritas.
Areas for future research	• Untuk keberhasilan penelitian selanjutnya, disarankan untuk melakukan pengelompokan praktik manajemen risiko menurut cara, tahapan, dan tim dan pemetaan dalam Scrum.	• Pendekatan proyeksi ditemukan cukup efektif sesuai modul yang disajikan	• Membuat model yang berbeda untuk masing-masing dari empat tingkat rekomendasi RM4Am dan melakukan eksperimen untuk mengevaluasi efektivitasnya	• Pemetakan nilai dampak berorientasi NFR ke dalam nilai biaya aktual dalam proyek

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INTRODUCTION

One of the main reasons for software project failure is the lack of risk management. To satisfy consumers in developing software, in the software development process there are risks that must be minimized. To manage risks in software development projects, researchers use several methods.

METHOD

- Agile
- Scrum
- Random Forest Algorithm
- RM4Am

FINDINGS

Scrum modeled on communication, team behavior and closely supervised planning will increase the success and number of projects Respondents who have a commonality of 80% or higher have significant differences in brand professional profiles. Random Forest Algorithm that can minimize risk in every module that is written in the team. Agile methods are believed to have certain advantages over traditional software development methods. RM4Am emphasizes the daily meeting is the most important subcomponent for managing risk in the project. To minimize risks in software development by placing skilled staff in high-risk areas.

CONCLUSION

In software development risk management, from the several methods we reviewed, it is recommended to prevent failures and threats in software projects, from the methods that other researchers use in each approach, the better method and can minimize risks in software development is the scrum method.

REFERENCES

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