

ABSTRACT

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Consentration : **Construction Management**
Title : *Use of dynamic risk manageability models in tunnel projects for performance improvement*
Councillor : **Dr. Ir. Albert Eddy Husin, MT.**

Large construction projects experience changes in execution time or increase in construction costs so that projects became projects that were not successful in performance. Tunnel projects experienced delays of between 20% - 40% and cost overruns of 13% - 18% of the implementation plan that had been set. Factors that affect cost and time performance based on the Risk Manageability of the tunnel project. How to model and simulate Dynamic Model Risk Manageability dynamic model in tunnel project The distribution of questionnaires and analysis with SPSS simulation helps identify the variables used in dynamic modeling. Analyzing the factors affecting cost and time performance based on Risk Manageability, Analyzing modeling and modeling results. The use of dynamic systems in risk manageability modeling helps anticipate risks due to cost overrun and time overrun by using the questionnaire results factors so that the best scenario is obtained to increase Performance Cost Overrun 3.65% and Time Overrun 7.89%.

Keywords: *Cost Overrun, Tunnel, Dynamic Model, Risk Manageability*

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ABSTRAK

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Konsentrasi : Manajemen Konstruksi
Judul : Penggunaan model dinamis *risk manageability* pada proyek terowongan untuk perbaikan kinerja
Dosen Pembimbing : Dr. Ir. Albert Eddy Husin, MT.

Proyek-proyek konstruksi proyek besar mengalami perubahan waktu pelaksanaan ataupun kenaikan biaya konstruksi sehingga proyek-proyek menjadi proyek yang tidak sukses secara kinerja. Proyek-proyek terowongan mengalami keterlambatan antara 20% - 40% dan *cost overrun* sebanyak 13% - 18% dari rencana pelaksanaan yang telah ditetapkan. Faktor yang mempengaruhi kinerja biaya dan waktu berdasarkan *Risk Manageability* proyek terowongan. Bagaimana pemodelan dan simulasi pemodelan *Model Dinamis Risk Manageability* model dinamis pada proyek terowongan. Penyebaran kuesioner dan analisis dengan simulasi SPSS membantu mengidentifikasi variabel yang digunakan dalam pemodelan dinamis. Menganalisis faktor-faktor mempengaruhi kinerja biaya dan waktu berdasarkan *Risk Manageability*, Menganalisis pemodelan dan hasil pemodelan. Penggunaan sistem dinamis dalam pemodelan *risk manageability* membantu mengantisipasi risiko akibat *cost overrun* dan *time overrun* dengan menggunakan faktor hasil kuesioner sehingga diperoleh skenario terbaik untuk peningkatan Performance Cost Overrun 3.65% dan Time Overrun 7.89%.

Kata kunci: *Cost Overrun*, Terowongan, Model Dinamis, *Risk Manageability*