

## ABSTRAK

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### **ANALISIS PREDIKSI DURASI PROYEK MENGGUNAKAN METODE *EARNED SCHEDULE* DAN METODE *EARNED DURATION MANAGEMENT***

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(95 halaman; 47 gambar; 14 tabel; 1 lampiran)

Penelitian menginformasikan 78 proyek konstruksi skala besar maupun kecil mengalami pembengkakan biaya akibat keterlambatan. Dalam memprediksi durasi akhir proyek diperlukan metode yang baik yang ditandai dengan tingkat keakuratan yang baik. Metode yang sering digunakan adalah *Earned Value Management* (EVM) berdasarkan *Schedule Performance Index* (SPI), konsep EVM berlandaskan pada penggunaan biaya untuk menentukan kinerja proyek dan durasi akhir suatu proyek, akan tetapi EVM dinilai kurang akurat dalam memprediksi durasi proyek. Metode lainnya yang dapat digunakan untuk prediksi durasi proyek adalah *Earned Schedule* (ES) dan metode *Earned Duration Management* (EDM) dengan data yang dibutuhkan untuk perhitungan antara lain RAB proyek, jadwal proyek, dan kurva S proyek. Tujuan dari penelitian ini adalah memperoleh perbandingan Metode *Earned Schedule* dan Metode *Earned Duration Management* dalam memprediksi durasi Proyek Gedung Sekolah di Ambon sehingga dapat dijadikan acuan dalam mengerjakan proyek Gedung Sekolah di Ambon dan memperoleh metode yang baik untuk memprediksi durasi proyek Gedung Sekolah di Ambon. Prediksi durasi proyek pada penelitian ini dilakukan pada Proyek Gedung Sekolah di Ambon. Metode yang digunakan dalam penelitian ini adalah metode dengan kajian komparatif antara metode *Earned Schedule* dan metode *Earned Duration Management* yang keakuratan durasi proyeknya diuji dengan metode *Mean Absolute Percentage Error* (MAPE). Nilai rata – rata persentase kesalahan pada akhir – akhir peninjauan yang lebih dekat dengan 0% pada metode EDM menjadikan metode ini sebagai metode yang paling baik untuk memprediksi durasi Proyek Gedung Sekolah di Ambon.

Kata Kunci: Durasi, Metode *Earned Schedule*, Metode *Earned Duration Management*

Referensi: 12 referensi (1999 – 2019)

## ABSTRACT

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### **ANALYSIS OF PROJECT DURATION PREDICTION USING EARNED SCHEDULE METHOD AND EARNED DURATION MANAGEMENT METHOD**

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(95 pages; 47 pictures; 14 tables; 1 appendix)

Research shows that 78 large and small scale construction projects experienced cost overruns due to delays. In predicting the final duration of a project, a good method is needed which is characterized by a good level of accuracy. Frequently used methods are Earned Value Management (EVM) based on Schedule Performance Index (SPI), the EVM concept is based on the use of costs to determine project performance and the final duration of a project, however EVM is considered less accurate in predicting duration project. Another method that can be used to predict project duration is Earned Schedule (ES) and Earned method Duration Management (EDM) with the data needed for calculations including project RAB, project schedule, and project S curve. The aim of this research is to obtain a comparison of the Earned Schedule Method and the Earned Duration Management Method in predicting the duration of the School Building Project in Ambon so that it can be used as a reference in working on the School Building project in Ambon and obtain a good method for predicting the duration of the School Building project in Ambon. Prediction of project duration in this research was carried out on the School Building Project in Ambon. The method used in this research is a method with a comparative study between the Earned Schedule method and the Earned Duration Management method, where the accuracy of the project duration is tested using the Mean Absolute Percentage Error (MAPE) method. The average percentage error value at the end of the review which is closer to 0% in the EDM method makes this method the best method for predicting the duration of the School Building Project in Ambon

Keywords: Duration, Earned Schedule Method, Earned Duration Management Method

References: 12 References (1999 – 2019)