Applying revised sliding moving average approach to improve project duration forecasting

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ABSTRACT

Vandevoorde and Vanhoucke(2006) presented three major forecasting methods for project duration. These three major forecasting methods are the planned value method, the earned duration method, the earned schedule method. Teicholz (1993) forecasts the remained cost of the remaining work using the average past performance and proposed the sliding moving average(SMA). To forecast project final duration,Chang (2009) proposed a sliding moving average method on the base of earned schedule method.However, the sliding moving average method proposed by Chang (2009) didn ’ t consider fluctuation range of the unit duration. This study deemed that the number of time periods used for the moving average varies depending on the stability of project performance from period to period. Therefore, this study proposed a revised sliding moving average method which can dynamically reflect recent performance of project and improve the accuracy of forecasting the final duration of project.The revised sliding moving average that this study Compared with others forecast methods by weighted average composite rank and sign test. To prove that The revised sliding moving average is better then others forecast methods.

Keywords : sliding moving average (SMA)、Earned Value、earned schedule

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