

# Forecasting Project Duration by Using Dynamic Sliding Moving Average Approach

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## ABSTRACT

That controlling the project period benefits can handle the project schedule, cost and performance. Then, the project forecasting is one of the vital issues for project duration. There have three major forecasting methods that are the planned value method, the earned duration method, the earned schedule method. Then, they extend out nine forecasting methods that depends on the performance of uncompleted parts projects. However, above methods mostly using average past performance to forecasts remaining work yet. Then, it unable reaction recent performance of forecasts results rapidly. Therefore, that could be project manager unable to propose the useful management content. Accordingly, this study using the revised sliding moving average method combined by sliding moving average method and earned schedule method to forecasting the period of project duration. Furthermore, this study proposed the dynamic sliding moving average(DSMSA), which can quickly reflect recent performance of project duration forecasting and accuracy handle sliding degree for avoid to sliding excessive or inadequate. Based above, this study proposed method may improve the accuracy of forecasting the final duration of project and helps project manager in decision making. Finally, this study compares dynamic sliding moving average with mix weight average ranking, average absolute value error percent, sign test method and the others. Then, that proofing the dynamic sliding moving average method has better effectiveness to forecasting.

Keywords : dynamic sliding moving average、 project duration、 earned schedule

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