

Analysis of Physical Progress V/S Duration Progress Complete In MSP during Tracking

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Abstract: Tracking is one of the most important features of any project which gives us a check on whether the planned and actual execution of any construction project is as per the base line or varying with the progress

This paper aims to deal with different parameters of progress which is used in monitoring the construction activities. The three main parameters upon which the reports aim to concentrate are 1) Percentage complete 2) Percentage work complete 3) Physical percentage complete. Comparative analysis is done with respect to the progress with due alone three parameters with changes done in task type and the variations in progress. The importance of the above parameters are discussed with a case study in different situations of usage is presented.

Keywords: Actual cost, earned value, scheduled variance, tracking, work complete

1. Introduction

Physical progress of a project is the status or condition of a task, activity or any discipline based on pre established guidelines related to the amount of extent of work completed, duration progress of a construction project is the condition of activities, or tasks which are entitled as per the duration changes or the actual progress of the project is the desired duration is generally termed as duration progress. In any other major construction projects it is merely difficult to have perfect scheduling, thus in the large construction projects it is been practice of using project management software's such as MSP and Primavera.

2. Objective

- To study the importance of duration and cost management used in the construction projects
- The main objective of the project is to bring out the actual difference between the physical and duration progresses in a construction project
- Study MSP, its features, importance of MSP in construction industry and benefits of using software

3. Methodology

Microsoft project 2010 software is used for the project.

Tracking is done at two review dates at the project, before to that the scheduling is done, the resources is allocated as per the requirements the cost estimated required for the project is made, at the review date as per the base line tracking is done, The activities covered before the review date are summed up and the and the graphs are plotted workweeks are taken in the x axis, and the percentage of work in the y axis

Earned value analysis:- Earned Value Project/Performance Management (EVPM) is a project management technique an industry standard method of measuring a project's progress at any given point in time, forecasting its completion date and final cost, and analyzing variances in the schedule and budget as the project proceeds unique for measuring project performance and progress in an objective manner

Actual cost: - Expenses incurred by a contractor for labour, material, equipment, financing, services, utilities, etc., plus overheads and contractor's profit. Costs such as that of land, architectural design, consultant and engineer's fee are not construction costs

Earned Value Management (EVM) helps project managers to measure project performance. It is a systematic project management process used to find variances in projects based on the comparison of worked performed and work planned. EVM is used on the cost and schedule control and can be very useful in project forecasting. The Earned Value Method is an experienced and reliable method within the project controlling and

basically means a project-related cost tracking. Depending on the complexity of the project to be realized, there are several variants of the project-accompanying cost pursuit. In the so-called basic version which is implemented in software projects, the real costs of the actual output can be acquired. In very large and/or very expensive projects in addition to the EVM mentioned variables (actual cost of the actual performance and target costs of the actual performance) and the target cost of the required power can be included. The difference between the budgeted cost of the required power and the target costs of the actual performance gives here the deviation of power

Schedule variance: - Schedule variance is an indicator of whether a project schedule is ahead or behind and is typically used within Earned Value Management (EVM). Schedule Variance can be calculated by subtracting the Budgeted Cost of Work Scheduled (BCWS) from the Budgeted Cost of Work Performed (BCWP)

Cost variance: - Cost variance is the difference between a cost's actual amount and its budgeted or planned amount

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4. Outcome of analysis

Review date (15/12)

TASK	PLANNED VAUE	EARNED VALUE	ACTUAL COST SV	CV	%GE	%ge work
TA	15266526	14599974	15625734	666548	1025760	35 74

Table 1: Comparison of cost with respect to work complete and percentage work complete

TASK	PLANNED VAUE	EARNED VALUE	ACTUAL COST SV	CV	%GE	PHY%GE
TA	15266526	12928618	15266526	2337908	2337908	35 88

Table 2: Comparison of cost with respect to work complete and physical percentage complete

Based on the observation and evaluation it is found that after tracking the duration progress has more prior results in any of the construction activities when its comes to tracking by our study slight decrease in the cost in earned value is found with physical progress the graphs shows the difference between the duration and physical progress comparison .

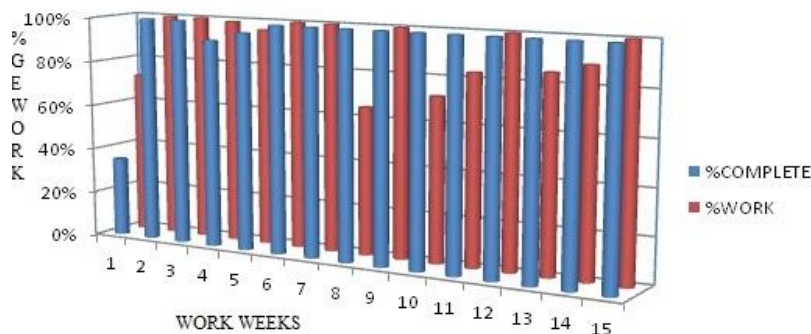


Figure 1: Comparison of cost with respect to duration progress

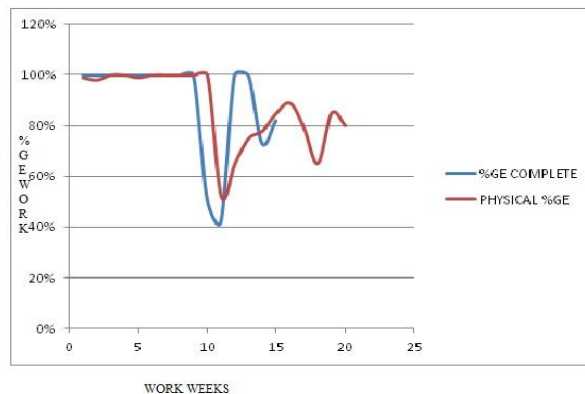


Figure 2: Comparison of cost with respect to physical progress

5. Conclusions

- The study shows implementing duration progress in tracking helps to improvement and easy flow of project
- The earned value analysis helps to have proper schedule maintenance with respect cost and resources
- In this study the EVA is carried out using MSP however in the developing situations the material resource tracking analysis can also be done with respect to the schedules.
- Tracking at any sort of date allows managers to have control over delays in the work, the situation arising can be easily managed by the managers.
- Company having several numbers of similar projects can utilise this system of analysis and can update with the best possible alternatives as per the requirements.

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