

ABSTRACT

ABC Hotel plumbing installation project is a piping system installation project including clean water, dirty water, used water, rain water, hot water and vent water. Up until the 57th week of project, there is a few indications that the project is experiencing delays. The slow work of civil contractors in finishing their work has resulted in plumbing contractors having to delay their work in few occasions because the facility isn't ready to be worked on yet. Other than that, the ambiguity of the Construction Management's work also results in poor coordination between contractors.

For those reasons, monitoring and controlling processes are done to the plumbing work using the Earned Value Management method to observe the current performance status regarding finished works and to find corrective measures for later works.

With the PV value of Rp3.414.432.000, the EVM calculation on the 57th week shows delays with the SV value of -Rp404.747.961 and with SPI value of 0,86. Other than that, the obtained CV value is Rp711.293.186 with the CPI of 1,41. Thus, it could be identified that the project is having delays with a negative value SV, but is gaining savings because the CV value is positive. After delays causes analysis is done using Root Cause Analysis, it is found that the root of the delay problems is the lack of workers and work devices for civil contractors.

Keywords: *Work Performance, Monitoring and Controlling, Earned Value Management, Forecasting, Root Cause Analysis.*