

ABSTRACT

PT ABC is a Badan Usaha Milik Negara (BUMN) engaged in Information and Communication Technology (ICT) services and telecommunications networks in Indonesia. PT ABC aspires to be able to expand and strengthen internet network connections throughout Indonesia, both urban and rural. Therefore, PT ABC wants to build the installation and procurement of OSP Feeder Node-B. To achieve this goal, PT ABC decided to cooperate with PT XYZ in working on changing the network and radio transmission to fiber optic transmission. During the project, several problems were found that caused the project to experience delays. One of the main problems in the project work is the absence of tools for monitoring and controlling daily work, this makes it difficult for project stakeholders to monitor project work in real time and cannot take the right steps if problems arise at a certain time. To ensure that similar incidents do not recur, it is necessary to evaluate both in terms of human resources and project management, especially in terms of reporting project progress in real time. Therefore, in this final project, a Google Data Studio-based Monitoring & Controlling Dashboard will be designed using the Waterfall method. The monitoring and controlling dashboard is prepared based on the needs of the project owner, this aims to help the project in terms of reporting daily progress and ensuring that the project is carried out according to the week and the weight of the progress carried out according to what has been planned.

The design of the Monitoring & Controlling Dashboard uses the Waterfall method because the analyzers and users move sequentially from one phase to the next. In working on this monitoring and controlling dashboard, several data inputs are required such as Project charter, gantt chart, WBS, WBS Dictionary. These data will later be processed into features that will be displayed on the dashboard such as the performance results of the OSP Feeder Node-B project using earned value *management* (EVM) analysis and displaying the results of the Schedule Performance Index (SPI) of the OSP Feeder Node-B project using earned value *management* (EVM) analysis.

In the results of this monitoring and controlling dashboard design, it produces two main points, namely being able to display the results of project performance using earned value *management* (EVM) and the results of the schedule performance index (SPI). The SPI calculation that has been carried out produces a value of 0.81 which means the project is Over Schedule. The Monitoring and Controlling dashboard will also display the risk log per activity list in the project, and can input the progress of the ongoing project into the progress update worksheet that has been integrated with Google Data Studio. Then the dashboard display will automatically change.

Keywords: *Dashboard, Monitoring and Controlling, Waterfall, Earned Value Management (EVM)*