

ABSTRACT

The quality of human resources is a critical factor in every project, especially during the execution phase, where skilled workers are required to ensure that the project outcome meets high standards and aligns with the initial plan. This study aims to Design Human Resource Leveling for the Joint Planning Program (JPP) Project at PT XYZ using the Resource leveling and Burgess Methods. PT XYZ is a company that focuses on construction and network infrastructure management services. As a company managing numerous projects, it inevitably faces various risks, one of which is project delays. Such delays can affect the overall project quality, particularly from a managerial standpoint. Therefore, this study focuses on the managerial aspect of the project, especially on human resource quality and effective scheduling. By applying the resource leveling method, the allocation and fluctuation in human resource Utilization can be significantly minimized. In addition to resource leveling, the Critical Path Method (CPM) is also utilized to propose a revised project schedule aimed at increasing scheduling efficiency and reducing delays. The results of this study show that after applying resource leveling, the maximum number of required workers was reduced to 14, which matches the currently available workforce, compared to the previous requirement of 18 workers. This reduction leads to a lower fluctuation value—58 compared to the initial value of 100—indicating improved stability in workforce allocation throughout the project duration. Resource leveling also impacts the project schedule by causing changes to the critical path due to adjustments in float values and increased duration for some activities.

Keywords: *Resource Leveling, CPM, Burgess, Project Scheduling*