

ABSTRACT

The procurement and installation project of the Metro L3 Aggregation Platform X at PT XYZ experienced delays that resulted in significant deviations from the planned progress and required two schedule extensions. Furthermore, S-curve data indicated that substantial variations occurred particularly during the procurement and installation phases. Therefore, this final project aims to identify the dominant risk factors contributing to project delays and to design risk mitigation strategies to prevent similar issues in future projects. This research applies the House of Risk (HOR) approach to identify and prioritize risk factors based on their severity and occurrence. According to the HOR calculation results, which rank risks by their Aggregate Risk Potential (ARP) values, the most dominant risk factors involve human resources, materials, and methods — specifically the limited availability of team members, ineffective coordination among stakeholders, delays and inconsistencies in material procurement, and ineffective method on project scheduling. Based on these findings, risk mitigation strategies were developed, focusing on improving team coordination, strengthening material procurement controls, and enhancing the effectiveness of project planning and scheduling. The implementation of these mitigation strategies is expected to help PT XYZ reduce the potential for future project delays and improve the overall effectiveness and efficiency of similar project executions.

Keywords: *project delays, house of risk, mitigation strategy,*