

## ABSTRACT

*PT ABC is a company engaged in industrial infrastructure development and is known for its reputation for completing large projects with high quality and efficiency. Currently, PT ABC is building a palm oil mill (PKS) with a period of 12 months starting from June 2023 to June 2024, however, in June 2024 the PKS project is still 72% progress so it can be concluded that the project is experiencing delays. So in this research we will identify the causes of delays with the aim of identifying the causes of delays or waste that often occur in PKS projects. This waste identification aims to provide recommendations to increase company efficiency and productivity. The Lean Project Management (LPM) method is used in this research to design a waste list for project implementation. After identifying that waste is a non-value-added activity that causes unproductivity. Next, an assessment is carried out using the Failure Mode and Effects Analysis (FMEA) method to determine the main priorities that need to be addressed. This approach is expected to help companies overcome waste problems so that projects can run well. Based on the results of the waste management plan, six activities that did not add value in the palm oil mill construction project were identified, namely waste waiting (bad weather, long bureaucracy, inefficient logistics), waste motion (inadequate communication between workers), waste transportation (delays materials), and waste defects (lack of worker skills). Solutions for each waste have been developed in consultation with relevant stakeholders. After identifying waste, an assessment is carried out using the FMEA method to determine handling priorities. Based on the FMEA results, it shows that the bad weather factor has the highest RPN value, namely 648 with the solution given being to prepare a contingency plan for schedule adjustments and protection of equipment and personnel.*

***Keywords: Project Delay, Waste, Lean Project Management, Failure Mode and Effect Analysis***