

ABSTRACT

PT. P is a provider of installation and integration services that operates in the field of devices and networks focusing on the IoT (Internet of Things), Mobility, and CPE Manage (Customer-premises Equipment) segments. In this case PT. P, which is a partner company, will work on a smart building project, namely the installation of ICT (Information and Communications Technology) infrastructure. In this project, the ICT infrastructure that is being worked on is divided into four types, namely, main equipment, supporting equipment, multimedia facilities, and datacenter supporting facilities. Based on previous experience and data regarding similar project builders, it was observed that there were delays in project implementation caused by waste or non-value-added activities. This is formed due to the factors that have the potential to create waste in the project.

In this case, a lean project management approach is applied to minimize or eliminate the potential for waste to form in the project. By applying four of the eight principles of lean project management, namely project system, right solution, managing variation, and project risk management. Waste identification is done by grouping which is divided into eight categories according to Womack and Jones, with the results obtained five categories in this case, namely overproduction, waiting, inappropriate processing, unnecessary motion, and unsatisfying goods and services. Overproduction as the most influential identified waste.

The research is expected to bring results, namely the identification of waste or non-value-added activities on the project, along with solutions (waste response and waste impact cost) that the contractor needs to do if the waste occurs in actual field conditions. In addition, it is also expected to be able to design results, namely risk response to determine contingency plans for all identified risks. This will give birth to preventive behavior and countermeasures on waste in the scope of construction projects. By applying the method approach, the project has more potential to avoid cost overruns, work delays, and project failures.

Keywords — *Waste, Lean Project Management, Evaluation Matrix, Failure Mode and Effect Analysis*