

ABSTRACT

Lean Project Management is an approach that focuses on identifying risk problems, estimating project needs, and eliminating waste that occurs in project planning. One of the companies experiencing this waste is PT XYZ. In 2023 PT XYZ will carry out the STB (Set Top Box) project with a project duration of 7 months. This project consists of 4 main stages, namely the preparation stage, the procurement stage, the production stage, and the distribution stage. The preparation stage is the stage where the project team prepares the project by making a cooperation contract with the project owner and vendor. The procurement stage is the stage of the project team in planning the procurement of materials, and ordering materials from vendors. The production stage is the stage of making STB products, and the distribution stage is the stage of distributing finished products (STB) until they reach the hands of consumers.

Problems started to occur marked by the high overstock data at PT XYZ. The overstock data consists of waste in the form of 67% overproduction, 23% defects, and 10% returns. To identify the main problems that exist in the project, namely overproduction, the method used in this research is Value Stream Mapping. The Value Stream Mapping method can describe the entire process that occurs in a project, so that it can identify and minimize the waste generated in a project. The stages of the Value Stream Mapping method start from making a product family, mapping the current value stream, identifying waste, mapping the future value stream, and making improvements. From the data processing carried out, the results are obtained in the form of other wastes that trigger overproduction, namely low quality control, lack of accurate information, excessive resources, and incomplete documents. To overcome this problem, a Future Value Stream Mapping was created to illustrate the proposed process for the STB project. Production Future Value Stream Mapping that has been made can describe the flow of production activities with the proposed conditions in the form of reducing the resources used from 75 people to 24 people, can reduce production workstation lines from 3 lines to 1 line with STB production results in accordance with the number of orders of 6000 units. Future Value Stream Mapping also has advantages

or benefits to increase process efficiency at each stage of the project. The Future Value Stream Mapping that is designed can be applied to the next project that has the same order. The design applied is able to increase the efficiency of processing time at each stage, namely the preparation stage can increase by 13%, at the procurement stage there can be an increase by 4%, at the production stage it can increase by 23%, and at the distribution stage there can be an increase in total efficiency processing time by 13%.

Apart from that, from the data processing stage for making value stream mapping in the form of waste identification, the researchers recommend solutions for improving overproduction in the form of minimizing activities that do not have added value at each stage, meeting stakeholder needs by producing units according to agreed requirements, improving coordination and communication between teams project so that miss communications do not occur in project implementation, selling overproduction products to areas that still do not have digital TV, improving production flow by implementing Production Future Value Stream Mapping with the condition that only 1 line workstation is used and only 24 resources are used people, improve the material project procurement planning system by conducting a thorough analysis of consumer requests and needs, and monitoring and controlling properly so that if something goes wrong it can be caught early to be resolved.

Keywords: Projects, Lean Project Management, Waste, Production, Value Stream Mapping