ABSTRACT

According to statistical data, the potential for problematic information system development projects is 55% in Indonesia (Rudi and Hanson, 2018). One of the causes is incomplete (unfulfilled) requirements, which results in a software change request (SCR). In one of the projects undertaken by PT. XYZ there are a number of SCRs that occur throughout the software development and development process and result in additional duration and additional costs from the initial costs. This study aims to determine the additional duration and costs that will be incurred from the Software Development Supply Chain (SDSC) perspective SCR which sees the stages of the software development process as a dynamic system, so that it can be managed better (Mahesh Kumar et al, 2020).

Based on the data collected, a summary of the theory and previous research, SCR is simulated with the Descreate Event Simulation approach, namely by building a queue simulation based on scenarios of conditions that occur which are described through input data and configurations that are processed so as to produce the possible number of SCRs that will appear and the schedule for the process to be carried out. Programmer which is then calculated into the duration and cost of working on the SCR. The simulation results become an additional estimate of the duration and cost calculations in software development projects. To adjust the duration and cost of handling SCR, several strategies were carried out that were adapted to project conditions as one of the strategies for handling SCR.

Keywords: *information system; project management; software change request; software development supply chain; simulation, queue system.*