

ABSTRACT

CV. CJM is a clothing production company from designer boutique distro. One of the garments produced is from Warning Clothing boutique, which is a special brand for men's clothing, such as short-sleeved shirts. Warning Clothing has been cooperating with CV CJM since 2015, but for the production of new cooperation clothes starting from the end of 2016. The company struggles as shirt are their main income but they still battling with delayed delivery and unachieved target. Based on observations and interview with the supervisor and operators, one of the factor that affecting the unmaximized output is idle time, resulting from capacity and input differences. The average amount of idle units is 3 units with the total amount of idle time is 1716 seconds. The research will focus only by minimizing the idle time with Kanban system.

The research begins with gathering the primary and secondary data needed to be processed by firstly draw the outline with Value Stream Mapping current state. After knowing which workstation has the idle time, then the data will be processed using Constant Quantity Withdrawal System and design the Kanban Card and Kanban Post. The mechanism will be explained using a simple diagram and a Value Stream Mapping future state. After all data processed, there will be analysis of how the system would work and analyzing the advantages and disadvantages of the designed variables which is the card design and post design.

The result of this research are a buffer stock, the amount of kanban, the mechanism of the kanban system, and design of kanban cards and kanban post. By analyzing the system by using Value Stream Mapping Future State can be concluded that the cycle time of shirt production has been reduced from 3 hours and 34 minutes to 1 hour and 13 minutes only. This can doubled up the maximum output the factory can achieve. The research will then end with some conclusions and suggestions for another study.

Keywords: *Idle Time, Kanban System, Constant Quantity Withdrawal System, Buffer Stock*