

Sutapat Greadramrith 2012: A Study of Queueing Systems for Development of Service System of Letter of Guarantee Support Unit of Kasikorn Bank Public Company Limited. Master of Science (Statistics), Major Field: Statistics, Department of Statistics. Thesis Advisor: Associate Professor Prasit Payakkapong, M.S. 73 pages.

This research aims to study on queueing systems for development service system of Letter of Guarantee Support Unit of Kasikorn Bank Public Company Limited. The Letter of Guarantee Support Unit has 7 processes and 32 total staffs. From the study, it was found that there were two critical processes that obstruct the unit from achieving its goal. The delay in the processes occurred and they took for more than 60 seconds, while the ideal time was more than 70 percent. The queueing system simulation was created by comparing the service performance between the existing process and the simulation processes. There were three difference simulation systems; the simulation system 1: Increased 1 staff in setting up process and cut off 1 staff in approval process, the simulation system 2: Increased 1 staff in setting letter of guarantee number process and cut off 1 staff in approval process and the simulation system 3: Increased 1 staff in each setting up and setting letter of guarantee number process and cut off 2 staffs in approval process.

Base on the study, the simulation system 3 was the most efficiency, which could reduce the waiting time and increase the ability to serve, with the average time less than the existing system around 10.02 percent. On the other hand, the results from the simulation system 1 and 2 were less than the existing system only 0.45 percent and 7.98 percent respectively. Moreover, the simulation system 3 also showed that the ideal time was less than 70 percent which mean that the hypothesis was accepted, while the simulation system 1 and 2 reduced the processing time only 78.00 percent and 78.60 percent, respectively.

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