

UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

**THE MANAGEMENT OF QUEUING THEORY APPLICATION TO
AUTOMATED TELLER MACHINE BY USING M/M/1 AND M/G/1
SYSTEM**

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

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ABSTRACT

There are many queuing theories and formula that are applicable to be used in order to solve the queuing problems. However, these queuing theories use different formula. Thus, they will provide different answers and solutions. The queuing theories also demands specific condition such as the number of servers. This problem leads us to carry a research that use two queuing models in order to manage the waiting time of the ATM users by using queuing systems which are M/M/1 and M/G/1. We also want to compare which model between M/M/1 and M/G/1 is better for ATM queuing system. This research is very important because the results will help the ATM users a lot as they do not really prefer to wait too long. The results can also produce some suggestions or evidence that needed for the management to come up with solution such as adding new ATM machine.