

Prakakong Atthakaloonpan 2007: Simulation of The Public Bus System of Bangkok Mass Transit Authority : A Case Study of Zone 2 Division 1. Master of Science (Statistics), Major Field: Statistics, Department of Statistics. Thesis Advisor: Mrs. Ampai Thongteeraparp, Ph.D. 139 pages.

The purpose of this research was to study the bus service system of Bangkok Mass Transit Authority (zone 2 division 1), study only bus number 26 which is divided into three routes. The simulation of the current system and the two proposed system was conducted to compare the number of passengers, the time for waiting for buses in rush hours and determine the appropriate number of the officers for each bus station.

The results of the simulation of the public bus system of BMTA, are as follows:

1. The current system the waiting time average was 140 minutes per round trip 2,407 tickets were sold per day and the service time average was 146 minutes.
2. The first proposed system, the waiting time average was 118 minutes. 2,077 tickets were sold per day. The service time average on the route 1 was 225 minutes that is different from the route 2 which spent just only 86 minutes comparing with the third route only 100 minutes.
3. The second proposed system, the waiting time average was 96 minutes. 2,727 tickets were sold per day. The service time average on the route 1 was 137 minutes that is different from the route 2 which spent just only 44 minutes comparing with the third route only 97 minutes.

In conclusion the two proposed systems offered better service than the current one. In addition there was an increase in the number of the buses during rush hour.

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Thesis Advisor's signature

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