

ABSTRACT

Population and Registry Office Bandung is one of many public services in Bandung. As many public service, this office can't deny from queuing issue. One of counter service is offered by Population and Registry Office is service in listing and publishing birth certificate 0-60 days old. This counter is very high necessary compare to publishing death certificate and adoption. High necessary causes high arrival rate. Impact of high arrival rate is cause of long waiting time suffered by people before they get service from counter service. Long waiting time caused by high arrival rate and long service time. The purpose this study is analysis queuing system used by Population and Registry Office Bandung. In addition, another purpose this study is giving choice what queuing system more effective can using by Population and Registry Office Bandung.

This study used population 1.445 people. Suitability distribution Test used chi square test for arrival rate distribution and service rate distribution. The indicators for measure the effective rate are average number in the system (L_s), average number in the queue (L_q), average time in the system (W_s), average time in the queue (W_q), factor utility service (ρ), probabilities 0 people in the system (P_0).

The result of this study proved the queue model used is Single Channel Query System (M/M/1). Distribution of arrival is poison distribution with arrival rate (λ) 13.83 person/hour. Distribution of service is exponential distribution with services rate (μ)14.43 person/hour.

The result of calculation the most effective queuing system based the long waiting time and average number people in waiting line is Multi Channel Single Phase. But, there's the bad affect to factor utility service counter. If it uses Single Channel Multi Phase queuing system the waiting time and the long queuing are moving to positive movement. The long queuing is less and the waiting time is short in time if compare with using queuing system right now. And using this queuing system will faster in service time.

Key word: Queuing System, Public Service, Queue Model