ABSTRAK

Analisis Penerapan Teori Antrian Pada Sistem Pembayaran Di Supermarket Saga Swalayan Padang Pariaman Sumatera Barat; Zetra Pratama ZN; 41613120050; Jurusan Teknik Industri, Fakultas Teknik, Universitas Mercubuana.

Antri merupakan kegiatan menunggu giliran untuk dilayani. Kegiatan antri timbul karena jumlah fasilitas pelayanan jasa lebih sedikit dibandingkan dengan jumlah orang yang memerlukan pelayanan yang bersangkutan. Dalam suatu antrian, fenomena menunggu merupakan akibat dari kedatangan pelanggan dan waktu pelayanan yang tidak seimbang. Penggunaan model antrian dapat membantu pihak manajemen dalam menentukan jumlah kasir yang optimal pada sistem pembayaran di Supermarket Saga Swalayan Padang pariaman, supaya masalah antrian dapat dikurangi pada saat ramai dan mengurangi waktu menganggur pada kasir sehingga pihak Supermarket Saga Swalayan Padang pariaman dapat memberikan kinerja yang optimal dalam pelayanan. Dalam Penelitian ini digunakan analisis sistem antrian jalur berganda (M/M/S). Proses perhitungan data menggunakan manual dan perangkat lunak "*Quantitative for windows*" dengan modul *Waiting Lines*. Berdasarkan hasil penelitian diketahui bahwa kinerja sistem antrian yang ada kurang optimal karena mempunyai tingkat kegunaan fasilitas yang rendah dan tingkat kesibukan kasir pun masih rendah.

Kata Kunci : Kasir, Teori antrian, Tingkat kedatangan Model antrian jalur berganda (M/M/S), Pengoptimalan pelayanan.

ABSTRACT

Analysis Of Queuing Theory Application On The Payment Systems Of At Supermarket Saga Swalayan Padang Pariaman; Zetra Pratama ZN; 41613120050; Department of Industrial Engineering; Faculty of Technic; Mercubuana University.

Queue is an activity waiting to be served. Queue activity arises because the number of service facilities is less than the number of people who need the service in question. In a queue, waiting for the phenomenon is the result of customer arrival and service time are not balanced. The use of queuing model can assist management in determining the optimal number of supermarket's cashiers at Saga swalayan padang pariaman so that the problem can be reduced at the time of crowded and reduce the idle time at the checkout so the Supermarket at Saga Swalayan Padang pariaman can provide optimal performance in service. In this research is used analyze of multiple lines queuing system (M/M/S). This analyze process is calculated by using manual and the software "Quantitative For Windows" with Waiting Lines module. Based on the research, the results revealed that the performances of the existing queuing system was not optimal because it has a low level of utility facilities and low levels of activity cashiers too.

Keyword : Cashiers, Queuing theory, Safety state, Multiple channel query system (M/M/S),The optimization of services,