

## ABSTRAK

Antrean panjang dan waktu tunggu yang lama masih menjadi permasalahan utama dalam pelayanan pemesanan makanan di Kantin Pusat Universitas Trunojoyo Madura (UTM), terutama pada jam-jam sibuk. Penelitian ini bertujuan untuk merancang alur pelayanan *self-order* yang terintegrasi dengan alat *buzzer pager* guna mengurangi waktu tunggu dan antrean pembelian. Metode *Discrete Event Simulation (DES)* digunakan untuk memodelkan sistem pelayanan yang ada dan sistem usulan, dengan bantuan perangkat lunak *Arena Simulation*. Hasil simulasi menunjukkan bahwa penerapan sistem *self-order* dengan *buzzer pager* dapat mengurangi waktu tunggu rata-rata pelanggan dan memperbaiki alur pelayanan secara keseluruhan. Sistem ini memungkinkan pelanggan memesan makanan tanpa harus mengantre secara fisik, sehingga meningkatkan kenyamanan dan efisiensi pelayanan di kantin.

Kata Kunci: Alur pelayanan, antrean, *buzzer pager*, *Discrete Event Simulation (DES)*, *self-order*, waktu tunggu.

## ABSTRACT

*Long queues and long waiting times are still the main problems in food ordering services at the Central Canteen of Trunojoyo University Madura (UTM), especially during peak hours. This study aims to design a self-order service flow integrated with a buzzer pager device to reduce waiting times and purchase queues. The Discrete Event Simulation (DES) method is used to model the existing service system and the proposed system, with the help of Arena Simulation software. The simulation results show that the implementation of a self-order system with a buzzer pager can reduce the average waiting time of customers and improve the overall service flow. This system allows customers to order food without having to queue physically, thereby increasing the comfort and efficiency of service in the canteen.*

*Keywords: Service flow, queue, buzzer pager, Discrete Event Simulation (DES), self-order, waiting time.*