ABSTRACT

TULT mini mart is a store with a traditional service system that still relies on cashiers for ordering and payment processes. This system causes long queues and inefficient service times, especially during peak hours. These conditions affect customer comfort and operational effectiveness. Therefore, research needs to be conducted to *Add*ress the main issues, namely long waiting times and dependence on cashiers in the transaction process.

The solution proposed in this study is to develop a web-based self-service application system that allows customers to place orders and make payments independently. This system was developed using the Laravel and Bootstrap frameworks and integrated with Midtrans as a digital payment service provider via the QRIS method. The application also includes features such as *Product* catalog login, shopping cart, checkout, and transaction management by the admin.

Testing results show that the average transaction service time has decreased to approximately 8.86 seconds per customer. With an arrival rate of 4.09 customers per minute and a service rate of 9.09 customers per minute, the utility value (ρ) is 0.45, indicating the system is in a stable condition. Functional and structural testing showed that the system operates as expected. Thus, this system is capable of improving efficiency and user experience in the shopping process at the TULT mini mart.

Keywords: Self-service, Laravel, Mini Mart, Midtrans, Queue