ABSTRACT

The digital transformation within the Food & Beverage (F&B) and retail sectors demands increasingly complex and real-time system integration. Technological fragmentation across platforms often leads to inefficiencies, miscommunication between divisions, and errors in transaction recording and validation. This study addresses these challenges by developing a web-based Point of Sale (POS) system that integrates cashier and kitchen applications through the use of Application Programming Interfaces (APIs). A questionnaire-based research Method was employed to test the system's effectiveness in a multi-merchant startup environment, namely Ngolab . The implementation results demonstrate that API integration successfully eliminates miscommunication, accelerates transaction and payment validation processes, and enhances the accuracy of sales data in real-time. Although the system does not yet fully automate monthly financial reporting, it provides a valid data foundation for further financial analysis and reporting. Utilizing a RESTful API architecture, the POS system functions not only as a transactional tool but also as a strategic solution for improving technological interoperability and operational efficiency in modern F&B businesses.

Keywords: *Point of Sale, API integration, F&B operations system, business digitalization, RESTful API, Ngolab , web POS.*