

ABSTRACT

The development of non-cash payment systems in Indonesia has grown significantly since the implementation of the Quick Response Code Indonesian Standard (QRIS) by Bank Indonesia. This system enables more efficient, secure, and standardized digital transactions, providing substantial benefits for Micro, Small, and Medium Enterprises (MSMEs) in expanding their payment service coverage. However, as the adoption of QRIS increases, new challenges arise in the form of potential misuse and falsified payment proofs, which can harm merchants—especially when transaction verification is conducted manually and not in real-time.

To address this issue, this project designs and develops PayMe, a digital solution that integrates dynamic QRIS technology with real-time voice notifications based on *Text-to-Speech* (TTS) to enhance security and convenience in transaction verification. Dynamic QRIS allows the system to generate a unique QR code for each transaction with a locked nominal value, making it much harder to counterfeit compared to static QRIS. Meanwhile, real-time voice notifications provide immediate confirmation to the cashier when a payment is successful, eliminating the need to manually check bank mutations. PayMe consists of three core components: a Flutter-based mobile application for cashiers to initiate transactions and receive notifications, a backend server using Go (Golang) for processing business logic and integrating with the payment gateway, and an admin dashboard built with Next.js for managing user, branch, and transaction data. This solution is designed to be user-friendly, secure, efficient, and easily adopted by MSMEs without the need for additional hardware.

By combining dynamic QRIS and TTS technology into a single integrated system, PayMe is expected to assist MSMEs in detecting transactions quickly and accurately, reducing the risk of fraud, and increasing trust in Indonesia's growing digital payment ecosystem. Testing results show that the Payme application is highly effective, with a 100% functionality success rate in alpha testing and a user acceptance (UAT) score of 87.5% from MSME owners.

Keywords: Digital transaction, Dynamic QRIS, Flutter, Fraud, Golang, MSME, QRIS, Text-to-Speech.