ABSTRACT

Various transaction services in existing shopping centers can be fast, efficient and accurate, we need a support system that can handle it. In everyday practice, such as payment transactions will be performed using the money while the exchange of information will be done using paper and thus a transaction mechanism which can save recources.

In the final project use of NFC (Near Field Communication) technology on online shopping transactions. The result is a system design using a smartphone payment via radio frequency communication to the NFC Tag that product information is entered and the validation of expenditure transactions to the web server. These applications utilize the IMEI (International Mobile Equipment Identity) smartphone as user identity, use the account to prevent misuse by others, in which each e-Wallet application can only be used by smartphone owners and added more PIN (Personal Identification Number) with a combination of letters, numbers, and symbols. Replenishment (recharge) the balance of expenditure using voucher 16 digits that are auto generated it likely that same 2 voucher pieces very small and status from active to inactive if the voucher is already in use. e-Wallet application is running on Android smartphones called e-Wallet Service Payment Service.

Network statistics in DDMS with connection speeds an EDGE, 3G and WiFi based on the TX (transmitter) and RX (receiver), the maximum value is 10.29 kbps which indicates that RX is always greater than TX. This application resource usage areas that required size of 2.36 MB and need 2.39 MB storage for can be installed. These applications generate the Heap Size 9.383 MB and use 8.485 MB storage allocation, so the percentage of memory that is used to reach 90.43%. Based on the result of a survey from college student, credit card users, and the retail side, it has a response that 57% of respondents said e-Wallet can be applied as a solution to modern payment service and the remaining 43% stating is not time applied to the e-Wallet payment service.

Keywords : *Near Field Communication, e-Wallet Service Payment, NFC Tag*
International Mobile Equipment Identity, Personal Identification Number