

## **Abstract**

**E-Payment is an electronic payment system that uses internet facilities as an intermediary tool. Currently the development of information and communication technology also provides innovation in electronic payments (e-payment). Many examples of electronic payments already in Indonesia such as internet banking, ATM or debit cards, e-money, phone banking and so on can help and facilitate transactions. . Today, machines are very dominant in various human lives, and an example is a vending machine (vending machine) is a sale that utilizes machines. Today's vending machines still use traditional methods such as using coins, paper or smart cards, which still have many weaknesses and threats that can occur in the existing payment system. So the payment authentication factor is needed to pay more attention to user experience components, one of which is legal and ethical, including ownership, privacy, and security. So that in this study the implementation of the biometric fingerprint authentication scheme was made as an e-payment factor based on user experience. This payment authentication system can solve the problem of the risk of attack by bots to weaken the system by registering multiple accounts (1), the risk of topping up fails, it can harm the user (2), if the user loses a smartcard, the smartcard is at risk of being used by not the owner (3), if the data on the smartcard is cloned, it can pose a risk to the system (4). The conclusion of the proposed payment system can overcome the existing problems obtained from the system security testing scenario. In addition, user agreement testing (5.6) is also done by providing a questionnaire comparing the level of satisfaction of the existing and proposed payment systems, the results of this test say that the user feels comfortable with the proposed payment system.**

**Keywords: E-Payment, Biometric, Fingerprint, Smartcard, Vending Machine, Vending Drink.**