ABSTRACT
In recent years, the electronic payment system has become increasingly popular due to the convenience and efficiency it offers instead of the traditional payment manner. The security of electronic payment transactions is a crucial issue. If security is not enhanced, consumers, businesses, and banks will lose confidence in employing the electronic payment system, thereby seriously affecting the development of electronic commerce. Electronic payment methods include credit card, account-based, and electronic cash models. Among these methods, the electronic cash model is particularly similar to traditional cash payment and has the lowest cost margins, making it the most adaptable among consumers and vendors.

In addition, due to the rapid development of mobile communication and the high usage of mobile devices with superior flexibility and functionality, the electronic mobile device industry is booming. Given the variety of electronic payment technologies that cannot be applied universally, this study will discuss and analyze the trends, benefits, and concerns associated with electronic payment methods, focusing on the more commonly used commercial electronic cash payment system and academic research on the mechanisms of electronic payment methods. The objective of this thesis is to conclude with the results of relevant cash-based payment method comparisons and further apply the most superior technology to the smart store.

Keywords: Electronic commerce, Electronic payment, Electronic cash, Mobile payment, Information security, Smart store


