

Accelerating growth of e-commerce market

[Business](#), [E-Commerce](#)



With electronic currency system, each users maintains a e-cash account with e-cash member financial institution. Funding are converts into 'digital coins' by generating digital packets using digital cash algorithm. Digital coins will then be store into 'digital wallet' on the user's workstation, which equipped with supporting software that acts like an 'ATM machine' to transfer funding from e-cash account to the digital wallet in the form of digital coins. Coins can be deducted from the wallet when purchasing at e-cash compliant sites, and can also be transferred directly between e-cash users.

Each coin is set-up to be used only once, which is regulated a unique serial number added to each coin. When the e-cash holder redeems their coins to covert into real-world cash, the coins are sent to the bank for verification. If the coin has matching serial number with a coin that has already been spent, fraudulent activity is detected. Security: In e-cash, bank is not involved with the payment, the payee's and payer's digital wallet will represent the payment amount in digital coin form. On the security side, e-cash offers privacy of payment, where the merchants or the third party cannot obtain consumer bank account information.

Economic Aspect: One of the drawback of e-cash is that the face value of the digital coin is often set, therefore cannot give change. Also financial risk is high for stolen account (ie. by hackers), where the users will need to absorb all the financial loss. User-friendliness: E-cash can provide broader user range for consumers who are accustom to cash purchases, or people with poor credit history. According to statistics, 95% of the online shoppers complete their purchases with credit card. However, 40% of Americans do not have a credit card.

E-cash will allow E-commerce to open new markets to vast population of consumers. However, one of the major drawbacks of E-cash is inconvenience and accessibility, which requires specialized software to perform transaction.

Secure Credit Card In secure credit card transaction, customer directly releases credit card information via a secure server, where the customer's credit card number is encrypted using public key cryptography so that it can only be read by the merchants, or third party payment processing service.

Security: Since online transaction uses only the credit card number to establish transaction, its authentication process is insecure since anyone who acquires someone's credit card can use the information to shop online. Credit card transaction may also lead to privacy issues since traceable transactions may enable profile building of the user's spending behavior, which leads to marketing spam. One of the major concerns has been about stolen card information by hackers.

But many sources point out that incidence of intercepting a card information in transition during hacking is minuscule since card information only stores on the server for a short period of time. **Economy Aspect:** Contrary to general public's belief, credit cards are relatively safe to use for Internet shopping. Credit card users actually have a lower financial risk, as explained in a recent Internet Magazine article, "It's not a significant problem in security terms if you're connected to a secure server. And you are not liable if your card is used without your consent."

The credit supplier and/or the business that receives the payment will make up the loss. So you're not at risk if someone knows what your credit card

number is. " (" Paying Safe" 2) Many sources also points out that majority of the credit card fraud on the Internet originates from offline practices. Where people acquire other's credit card information to shop online. User-friendliness: The major advantage is that the customer are not require to registered with a network payment service as long as they have credit card.

Since credit card are widely accepted in most places, it can be directly used in the real-world for purchases without having to go through funding redemption process. Electronic Check E-check works in much the same way as a conventional checking account. Where the electronic document will include payer's information such as the name of the financial institution, account number, and name of the payer. Payer must also include the name of the receiving party, payment amount, and like a real-world check, be electronically signed by the payer.

The payee on the other end, will need to electronically endorsed the check before the check can be paid. Security: Electronic check provide good authentication since it utilizes digital certification to verify the check identity. However, it cannot well protect user's privacy since customer's information are presented to the merchants via payment. Economic Aspect: Electronic check is somewhat safe since consumer can stop check payment for questionable transaction. It is also hard for theft to get away with forge checks since all transactions are traceable by the bank.

User-friendliness: Electronic check is not easily accessible since users would need to apply for electronic check book from the bank. However, once the e-check is set up, it is easy to use and is compatible with actual checking

account from the traditional financial institution. Smart card Smart card are credit-card sized plastic cards with Visa or other credit card vendor store the amount of funding on a pre-paid basis. The card has a built-in microprocessor and memory used for identification or financial transactions.

Security:

Smart card has the offers the best security features in terms of authenticity, privacy, and integrity. It has the greatest advantage in remaining anonymity in transfer payments between two parties. Economic Aspect: However, if a smart card is lost, the electronic cash stored in the card is not replaceable. The situation is analogous to when a person keeps money in their wallet.

User-friendliness: Smart card is not generally accessible by the general public since consumer must apply for the smart card. And since smart card have not yet gained wide popularity yet, many places may not accept this method of payment.