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## A CASE STUDY

# ELECTRONIC MONEY IN MALAYSIA

**E-MONEY AND SMART CARD TECHNOLOGY HAVE A PATCHY RECORD SO FAR IN DEVELOPED COUNTRIES, BUT THEIR PROGRESS IN MALAYSIA IS ESPECIALLY PROMISING. BY BALA SHANMUGAM, MAHENDHIRAN AND MUDIARASAN**

Much has been written on moves to eliminate physical cash and substitute it with an electronic medium, opening the way for a cashless society. But so far the emphasis has been on developed economies, with newly developing economies relegated to the sidelines. This article highlights the development of e-money in Malaysia.

Electronic money or "e-money" is often referred to as a monetary value instrument which is stored electronically on an electronic device such as a chip card or a computer memory. In other words, e-money represents digital money or digital currency.

### **A bit of history**

The first use of e-money, or at least electronic money transfer, can be traced back to 1918, when the US Federal Reserve Bank first moved currency (manipulated book entries to clear payments balances among themselves) via telegraph.

However, the widespread use of e-money did not begin until the Automated Clearing House (ACH) was set up by the US Federal Reserve in 1972 to provide the US Treasury and commercial banks with an electronic alternative to physical cheque processing.

Electronic money, however, had been exchanged between business for decades via electronic bank transactions and currency exchanges. But the advent of internet commerce has permitted a much more widespread use of e-money transactions. As it grew both consumers and merchants demanded more security for on-line trading.

### **Global development of e-money**

The worldwide usage of e-money has grown rapidly in recent years with an estimated figure of 1.3 billion smart cards being produced for various applications in 1997.

According to the Bank for International Settlements, five European countries have been identified as having the biggest number of e-money users: Germany, Netherlands, Belgium, Spain and Austria. In Germany, Geldkarte and Paycard smartcards have been issued to almost 60 million users, with volumes of \$A160 million in 1999.

In The Netherlands, 20 million people used Chipknip smartcard in 1999. Meanwhile, Belgium had seven million Proton smartcard users, transacting more than \$A400 million in that year.

On the other hand, United Kingdom has only 140,000 users in terms of volume and a value of US\$2.9 million in 1999.

The US has a relatively smaller number of e-money users as compared to Europe. As at 1999, only 960,000 Visa Cash users were active. American Express issued more than 2.2 million of their Blue smart cards in 2000.

Smart card usage has proliferated in Asia, with about 30 million Asians relying on integrated circuit-based smart cards. In Australia, Telstra in 1997 had issued 10 million disposable smart phone cards among a population of only 18 million.

In South Korea around 9 million transit smart cards were issued to urban rail and bus travelers in the Seoul and Pusan in 1999. Hong Kong's transit operators managed to sell 6 million smart cards valued at \$A1.4 billion in 1998.