



THINKING SMALL

Micropayments made easy

By Michelle Park



IN JUNE 2004, an article in *The Observer*, an up-market British Sunday newspaper, peered into a crystal ball and predicted huge changes in the way people make small purchases. In 2010, the report suggested, you would be able to buy a coffee from a vending machine by waving a mobile phone in front of a scanner, with details of the purchase appearing on your next phone bill.

The newspaper article was right about the trend but wrong about the geography and the date. This type of purchase is not

yet possible in Britain but it is already commonplace in Japan, pilot schemes are in place in Singapore and later this year consumers in Shanghai will be able to use mobile phones to make purchases for leading brands of fast food and coffee.

In fact, the move away from using cash for small purchases – or micropayments as they are commonly called – is accelerating, largely as a result of developments in Asia. And while the use of mobiles may be the latest manifestation of the trend, it is essentially



being driven by the increase in pre-paid contactless smartcards.

In Hong Kong, the Octopus card is one such example. Launched in 1997 to pay fares on the city's burgeoning mass transit rail system, the Octopus card can now be used on virtually all the city's public transport networks and in convenience stores, supermarkets and fast-food restaurants as well as for parking metres, car parks and other point-of-sale applications such as service stations and vending machines.

With its high-density urban population and compact geography, Hong Kong is perhaps the perfect model for these types of cards. Banks have been quick to see the benefits for customers and have produced their own cards, and now the co-branded DBS Bank and Hutchison Whampoa Limited ComPass Visa card is joining the club.

Selected ComPass Visa cardholders will be able to make purchases of up to HKD500 (USD64) at a wide range of retail outlets, including Hutchison group stores such as PARKnSHOP, GREAT, TASTE, Watsons and Watson's Wine Cellar, and other retailers, by simply holding the card in front of a scanner.

The benefits are obvious. The transaction takes place in the blink of an eye – there's no fumbling for cash or waiting for your card to be swiped and then having to sign the credit card slip.

"It's a growing trend in the Asia Pacific. The whole retail industry is moving in the direction of a cashless society," said Bernard Chan, Senior Vice President of ComPass Visa. "Our research in Hong Kong shows that more than 70 per cent of purchases made by Compass Visa customers are for less than HKD500. The technology is advanced, secure and very convenient. The card saves so much time for both the customers and the merchants. It's what people want and customers can check their purchases and transactions on their credit card statements.

"When customers make micropayments they also enjoy all the same cash rebate reward. We think using the credit card for a lot more low ticket items will become a habit, especially as the same loyalty programmes and merchant discounts apply."

Cardholders simply place their cards in front of a secure reader at the checkout counter. The card utilises the latest Visa payWave technology which uses a Europay MasterCard Visa (EMV) chip to securely store and encrypt confidential information. An EMV chip is virtually impossible to copy and uses RSA public key algorithms with up to 1984-bit keys that uniquely identifies each transaction. No two cards share the same key, and the key is not transmitted.

"When payWave cards were first launched in Hong Kong, there were some customers who were concerned about security. But with our Lost Card Total Protection Service, customers are protected and are totally free from liability for unauthorised transactions. We also offer a 24-hour customer hotline for their peace of mind," said Mr Chan.

Payments are made via radio frequency, much like those used in mass transit environments. A Visa payWave card has an an-

tenna embedded in the card plastic. By simply holding the card to the reader, the chip in the card allows the instant transfer of information. The cardholder's account is charged, and the purchase is processed in the same manner as a swiped transaction.

This saves consumers valuable time. Watsons in Taiwan said that Visa payWave reduced queuing time by 77 per cent in its

outlets. According to Visa, the average transaction by credit card takes 25 to 35 seconds, cash 12 to 14 seconds and Visa payWave four to six seconds. Contactless payments are also more secure – the card never leaves the cardholder's hands, thereby reducing the opportunity for the card to be skimmed.

Globally, the move away from cash to contactless smart cards is gathering speed. Huge steps have been made in the United States and

Europe in recent years and a quick glance at the Contactless-News Website shows that the process is also gathering steam in less developed markets. PayWave cards are now available in Tbilisi, Georgia!

So, while society may never become entirely cashless, it seems almost certain that it will play an ever decreasing role in day-to-day life in developed, urban society.

The chip in the card allows the instant transfer of information



Left: Consumers are moving away from using cash for small purchases such as a cup of coffee. Above: Selected ComPass Visa cardholders will be able to use Visa payWave to make purchases of up to HKD500 at a wide range of retail outlets, including GREAT.