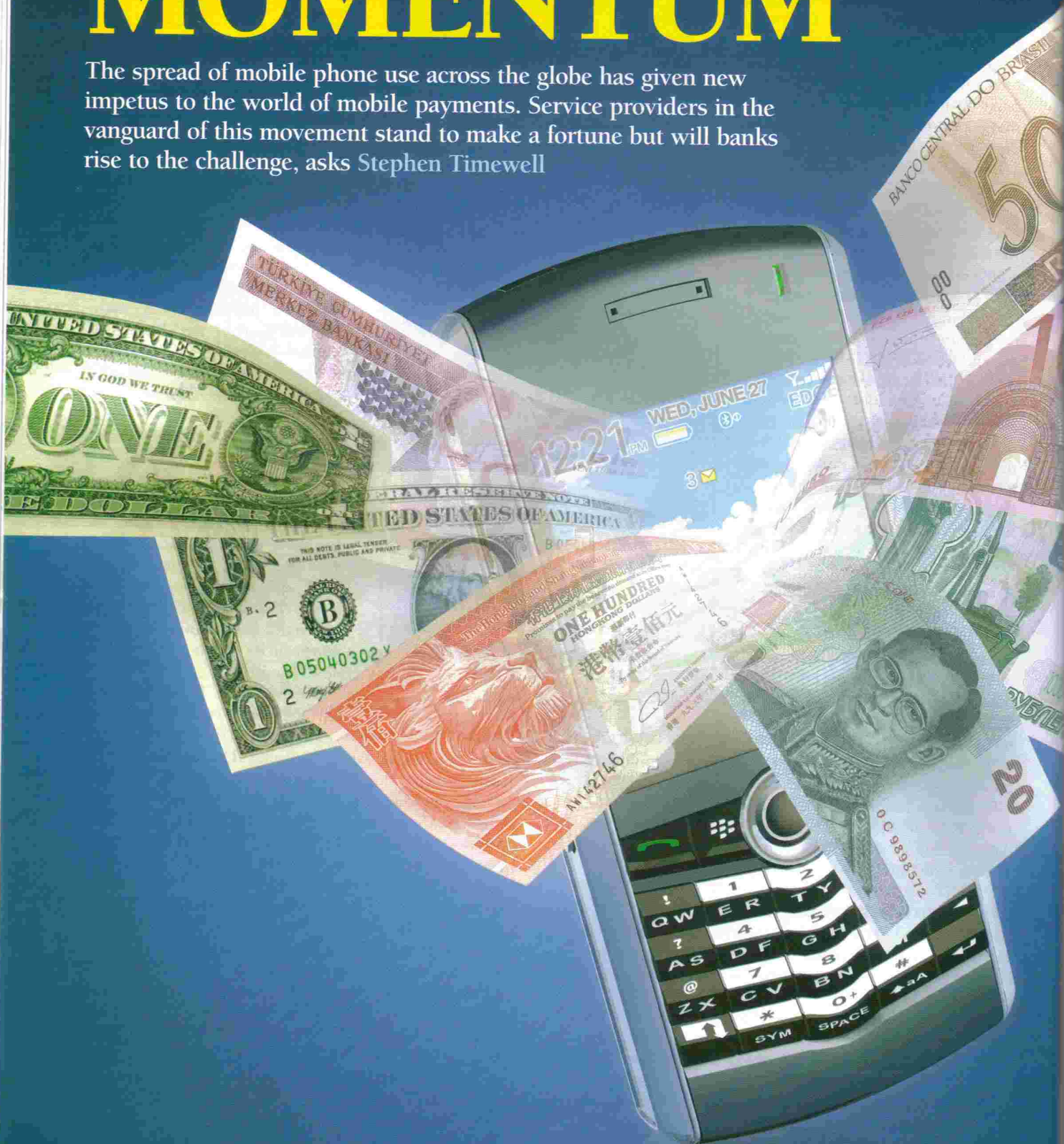


MOBILE MOMENTUM

The spread of mobile phone use across the globe has given new impetus to the world of mobile payments. Service providers in the vanguard of this movement stand to make a fortune but will banks rise to the challenge, asks Stephen Timewell



When it comes to gauging trends in banking channels, CEOs just need to do the maths. By 2010 there will be four billion mobile phones globally – almost four times the number of bank accounts. There will be millions of people working overseas funding an \$800bn-a-year remittances market. Many of those workers will not have bank accounts, nor will their families back home. However, they do have mobile phones, and banks that exploit this link for financial flows will earn a fortune.

But are the banks in the vanguard of this coming revolution or will they be left behind by more nimble players? There are still huge challenges to be overcome, such as security and the relationship between banks and telecoms companies. The technology is all in place and can do much more, such as making contactless payments for small purchases and travel. Industry pundits believe the tipping point for mobile phones and banking to come together (the moment when a major change suddenly accelerates) could be just around the corner.

Why is this happening now? Earlier this century, the failure of WAP-based mobile services and the dot-com crash took the steam out of the mobile momentum but today the ubiquitous nature of the mobile phone across the globe and its role as a prime, if not the only, banking channel in many developing countries has given mobile payments a new lease of life. Ron van Wezel, new chairman at mobile think-tank Mobey Forum (see Tech Vision on page 116 for full interview), says there are two different types of mobile payments: “First is remote payments, where we use the mobile as a device to initiate payments online. In this case, the mobile is an alternative channel to the PC. The other one is what we call proximity payments, where the mobile is used as a payment tool at point-of-sale, using near-field-communications (NFC) technology for contactless payments [‘tap and go’], where the mobile is replacing plastic cards.”

Significant role to play

In its dual role for both remote and contactless payments, the mobile can play a significant role in important areas such as cross-border remittances and direct person-to-person payments, as well as new business applications such as mobile ticketing and transport. In London, Hong Kong and New York, the contactless card has proved very successful with respective transport systems (for example, the Oyster card used in London). And if expatriate workers in Saudi Arabia or the US, for example, could send money back home to Pakistan or Mexico via the mobile, this could transform the growing remittance market. US researcher Celent estimates that the market will officially reach \$345bn by 2008 and unofficial estimates are as high as \$800bn, a huge market.

The pervasive mobile phone looks set to be the financial hub of the future but some banks and operators are being cautious. Too often in the past, institutions have gone down too many dead ends in search of the so-called ‘killer’ application and have wasted millions. This time, banks in particular are carefully ratcheting up their mobile offerings, trying to avoid the pitfalls of the past.

While the mobile could be the killer application for the new generation, there are a number of challenges facing the complex number of players involved. Mobey Forum, as a banking industry body that studies mobile services, wants to work out how a co-operation model could be set up between the different stakeholders in mobile payments. “Customer applications of banks and mobile operators both need a secure environment on the handset to store their credentials, and be able to securely authenticate their clients,” says Mr Van Wezel.

“Every handset already contains a secure element [SIM chip] issued and owned by the operator. Can banks use the same secure element? How can banks keep their independence in the customer relationship if they are bound to a hardware element issued by another company? What will be the appetite of operators for allowing banks to use the SIM? Will the SIM chip technology comply with the strong security requirements of banks? Are there other promising solu-

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tions that become available in the mass market, such as secure memory cards? These and other questions are on our agenda, and we want to establish an industry dialogue to come up with practical answers,” he says.

Banks are currently working out answers to these questions.

Mr Van Wezel, who is also head of payments and cards at ABN AMRO, says: “Consumers will not be ready to pay a big premium just to be able to use their phone to make a payment. Merchants will not line up to pay extra bank charges either, only for the privilege of accepting mobile payments. The business model has to look different.” He refers to a new e-payment service, iDeal, which was launched recently in the Netherlands. This service has grown explosively due to a powerful mix of an added-value payment tool and an attractive pricing model.

Streamlining efforts

Although mobile payments have proved popular in various expanding economies, such as Kenya and the Philippines, where the mobile may be the only option or banking channel, greater use of the mobile in financial services requires even more effort to standardise technologies and streamline systems. Celent forecasts that global mobile commerce revenues will more than double between 2006 and 2008 to reach \$55bn, but it is clear that the plethora of mobile technology standards impedes progress. The M-Pesa service launched by Vodafone in Kenya has enabled money to be sent via text messages but experts believe more needs to be done, and it requires either the core application to support multiple protocols or use of a common and >>

widely acceptable set of protocols for data exchange.

Greater mobile phone usage augers well for greater bankability. In South Africa, for example, 20%-25% of people who have never had a bank account have access to a mobile phone. British non-governmental organisation FinMark estimates that half of all the bank accounts in South Africa in the next five years will be administered by mobile phones. In South Africa and Kenya, mobile population coverage is 70% and 90% respectively while the mobile phone subscriber rate is 7.9% and 43.3% respectively. As the unbanked population starts to use mobile phones so it becomes reachable at an affordable cost and therefore more bankable.

The new mobile look

So what could some of the new mobile technologies look like? The Mobey Forum has recently announced that South Korean mobile operator SK Telecom and Nordic telecoms pioneers Telenor and TeliaSonera have joined along with major banks ING Bank and Rabobank. Bringing experienced telecoms operators into the group mix is seen as critical. "The challenges for creating successful mobile financial services are global. That means we need to collaborate across industries, globally," says Seung Jin Choi, SK Telecom's director of finance business development.

One commercially available m-payments system that is now open to any banking organisation whose customers have debit and/or credit cards is from Computer Sciences Corporation (CSC). Neil Brownlie, banking consultant at CSC, says the

The payments landscape is evolving rapidly with mobile and contactless technology driving innovation

mobile works as a proxy for a debit card using CSC's phone authorised transfer (PAT) system. Users register their phone number with their debit card using a simple registration process. They can then make payments to anyone, using just their mobile phone, and by simply using the recipient's phone number. The recipient will receive a text message on their phone explaining that they have been paid some money. It is then up to the recipient to either register their details themselves with the relevant merchant acquirer to receive the funds on their debit card, or whether they collect the funds from another location such as a bank or post office.

CSC does not have any banks using PAT yet, but it is optimistic that orders will swell this year because it uses existing card infrastructure and can be operational within three months. CSC is bullish that its debit card-related system will prove a winner.

New Zealand technology company Fronde Anywhere's Bank Anywhere solution has already been implemented by New Zealand's Kiwibank, where it enables the bank's customers to access a full range of banking services and complete transactions from their mobile phones. "The uptake of Kiwibank's text services has been phenomenal. Registered

text banking customers are checking their balances on average over nine times each per month and total monthly transaction volume is more than seven times the original forecasts," says Steve Ferguson, head of distribution at Kiwibank.

Executive vice-president Caroline Dewe believes the Java and SMS-based Bank Anywhere platform enables banks to offer a wide range of mobile services from a single platform to account balances and fund transfers.

Different platforms and approaches are emerging. "Carriers, card associations, device manufacturers and banks are trying to strike the right economic balance that will allow mobile phones to become a payment form factor at the digital as well as the physical point of sale. In the North American and European markets, telcos and banks may finally become bedfellows with the help of third party technology platforms agnostic to all parties," says Dan Schatt, senior analyst at Celent. "The advent of near field communications technology standards will certainly contribute to the growth of low value payments through mobile phones and expand the mobile commerce market for all parties."

Technology overload

Some banks appear to be suffering from technology overload. Banks, particularly in Europe, seem keen to bed down innovations, such as chip and pin and the introduction of the Single Euro Payments Area (SEPA), while quietly developing the appropriate technologies. Also, mobile represents a technology that could disintermediate the banks by utilising its direct person-to-person abilities to bypass the banks. While banks are unlikely to allow themselves to be bypassed, mobile is beginning to gain traction, particularly in developed markets, through the introduction of contactless payments for low-value transactions where the mobile or contactless device in effect replaces a plastic card and cash.

Last month, news emerged of secret talks among a group of European banks. The banks – believed to include Société Générale, Deutsche Bank, Dresdner Bank, Commerzbank, UniCredit, ABN AMRO, ING and Rabobank – are said to want to set up a pan-European debit card to challenge MasterCard and Visa Europe in cross-border business. The banks appear concerned by MasterCard's dominant role in providing debit card network services. Whether banks will reassert their relationships with customers directly, as opposed to using MasterCard or Visa as intermediaries, is not clear.

Non-card innovations

MasterCard Worldwide announced the launch of Europe's first watch equipped with MasterCard PayPass contactless technology last month, in partnership with Garanti Bank in Turkey. The PayPass device (available for purchases of less than €15) heralds a new era for credit payments in Europe, making paying for small value items quicker and more convenient than fumbling for cash.

"MasterCard's contactless payment technology is revolutionary because it has the ability to change consumer behaviour," says Cathleen Conforti, global PayPass product manager. "In various parts of the world today, our PayPass is in use in non-card forms, such as key fobs, wristbands and mobile phones, offering consumers a broad range of payment alternatives where speed, flexibility and convenience



(c) Transport for London 2005

Just the ticket: the contactless card has proved successful on London's transport system, among others, and could be combined with payWave

are essential. Without question, the days of cumbersome cash as king are numbered."

As of first quarter 2007, there are more than 14 million MasterCard PayPass cards and devices in the market that are accepted at more than 51,000 merchant locations globally, including major US sports facilities. But this is only the beginning. Later this year, contactless payments will come to Europe in force with a new launch in September by Visa, BarclayCard, Amex and MasterCard in the UK.

New wave in Europe

Starting in London, Visa Europe plans to roll out its Visa payWave contactless card payments solution across Europe. With Visa payWave, a payment card only needs to be waved in front of terminals with no need to physically swipe or insert into a point-of-sale device. In September, the commercial roll-out of the new Barclaycard Visa credit card is

expected, developed with Transport for London and Transys, and featuring contactless payWave technology combined on the same card with the Oyster transit function.

"For high volume retail environments, such as coffee shops, express grocery stores and newsagents, where transaction values are low and speed of service is essential, Visa payWave offers a secure, convenient and quick alternative to cash," says Visa's Mariano Dima. "Visa payWave is set to revolutionise how we pay in Europe, and London is going to be at the forefront."

In the UK, MasterCard expects contactless cards to take off as they have done in the US of late, and expects to have issued 500,000 cards by next March in the UK alone. For Visa, further launches are expected in Europe with the next one in Turkey followed by plans for France, Spain and Switzerland.

The payments landscape is evolving rapidly with mobile and contactless technology driving innovation and enabling communications platforms to be leveraged for originating and receiving payments. "Currently there are more than 440 million EMV cards in issuance and well over 6.1 million EMV terminals worldwide," says Capco principal consultant Francesco Burelli. "As the roll-out of chip card technology progresses, it enables the roll-out of contactless payments whenever a RFID [radio frequency identification] technology is added to the card and the terminal."

Mr Burelli notes that the adoption of contactless payments has been faster in the US and in some countries in the Asia-Pacific region. In the US alone, there are more than 17 million contactless cards and well over 350,000 merchant locations capable of accepting contactless payments. Proximity payments volumes are growing and with the further development of contactless acceptance, it is possible for a non-card based platform to become a payment vehicle.

Asia out in front

Experts suggest that in terms of mobile payment solutions, Asia is leading the field, with Japan and South Korea being examples where mobile payments have passed the pilot stage. The issue remains, however, that different models are in use in Asia with a core central problem. Capco and others firmly believe that the development of mobile payments and the employment of their huge potential requires a coordinated and collaborative effort from organisations in the payment and mobile industries. Any development limited to isolated mobile carriers' efforts or limited merchant acceptance will not provide the scale needed for mobile-based proximity payments to develop to their full potential.

Looking just a few years ahead, the payments world will be transformed. For example, spending on pre-paid payment cards in Europe is estimated to reach \$164bn by 2010, according to new Boston Consulting Group research last month, commissioned by MasterCard Europe. Contactless payments are growing fast and some suggest they will take off when issuers incorporate the payment mechanism into a mobile phone or other portable electronic device. And then there are mobile payments, which provide endless possibilities in the developed world and salvation for the unbanked in emerging economies. The payments revolution is taking place. The critical issue is whether the banks and their essential current accounts remain part of the changes. **TB**