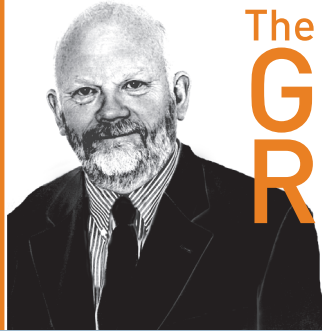


The
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The Goldfinch Report

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MOBILE PAYMENTS – The Time is NOW

So now you can pay for stuff using your mobile phone. But who will want to? How will this affect current payment means such as credit and debit cards? Where do the banks stand on mobile payments? What drives the emerging mobile payments market? In this issue of The Goldfinch Report, GFG Group's General Manager for South East Asia, Peter Goldfinch, applies his usual no holds barred approach to answering the above questions – and more. Peter's credentials have been earned over 23 years experience in electronic payments, including pioneering work on ATMs and EFTPOS, and the introduction of credit and debit cards to Russia.

Imagine a busker accepting a donation from you electronically via his mobile phone. On that day, says the Economist with tongue in cheek, the death blow will be dealt to physical cash forever. While it may yet be some time off, a range of more traditional services are already available to customers via their phone.

Digital money schemes like PayPal (which now has over 60 million global account-holders) are beginning to pay their way. And in markets such as South Korea (where three-quarters of the population carry mobile phones), electronic devices are available that help shoppers select and pay for their goods. Soon, payment industry experts are recognising, the only thing you'll need to leave home with is your mobile. It'll be your wallet and your key – as well as your phone, camera, PDA, calendar, MP3 player...

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IN THEIR TOP
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FOR 2004

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But will people want to shop by phone and, if they do, will the banks be locked out? Yes to the former, but no to the latter. Mobile payments currently appeal to those with no bank account (parents beware) and, in London, mobile phones offer the most efficient means for drivers to pay that city's traffic congestion charge.

In some countries, you've been able to pay for things using your mobile phone for years — and in such markets, consumers now demand that convenience. In 2001, the Economist reported that Finnish consumers were paying via their mobiles at the car wash. People in Hong Kong can already use their phones so they can walk through public transport ticket barriers.

These examples show that mobile handsets are best suited to making quick, one-off purchases of a familiar product or service. To urgently pay a bill, for example, particularly in response to a reminder sent to the mobile.

Mobiles are currently less well suited to searching for and purchasing products or services, paying monthly bills and managing your finances. But the London congestion charge example shows that where the decision-making process is minimal ('pay now or be fined') and the payment has to be made immediately, a mobile device offers customers clear advantages: you can be reminded to pay, you can make your payment in one click, and you might even be willing to pay a small premium for the service to avoid incurring a penalty and make your payment 'just-in-time'. And the biller may also be prepared to pay \$1 to avoid the cost of servicing a late payment.

But what if this is as far as the demand for mobile payments goes? While subscriber needs have yet to be clearly identified, recent news coverage clearly shows that bank customers around the world have become increasingly impatient about cheques taking three or four days to clear in an age when, they argue, it should take no longer than the click of a mouse. And even industry critics are noticing that people who were sceptical a year ago now believe mobile phones are set to become the preferred tool for cashless payments.

With many countries achieving near saturation in handset penetration, it's difficult to argue there's no demand. Banks seem to be gradually recognising this and are forming consortia among themselves and with mobile-handset manufacturers to explore the possibilities. ePaynews.com quoting Celent Communications states 24% of European banks placed mobile finance services in their top priorities for 2004. Mobile payments would only be a subset of this category, but the figure is still encouragingly high.

Success in the early stages of mobile payments is largely dependent on the maturity of the market. An interesting and a valid comparison of how demand can be ignited is EFTPOS. In the mid-1980s nobody seriously believed it would have an impact. It was not until merchants embraced it, and the EFTPOS terminal population reached critical penetration, that consumer behaviour changed. Similarly, mobile payments will need to be embraced by merchants and billers in order to drive subscriber behaviour.

In most markets there is a lower income, lower average revenue per unit (ARPU) subscriber sector that has yet to be penetrated, and mobile operators looking for growth will have to tap into their existing subscriber base for new revenue and then broaden their service offerings.

The size of the mobile payments market is difficult to calculate because opinions about what constitutes a payment vary, and everyone is guesstimating. ePaynews.com, quoting Celent Communications, says in 2004, 79 million Europeans were using wireless financial services and 63 million in the Asia-Pacific. This equates to 10–12% of subscribers using mobile for financial services in both regions. And while financial services covers a far broader area than just mobile payments, the figure indicates a strong base of subscribers who are likely to make mobile payments, if they don't already do so.

It's a cultural thing

Take-up of mobile payments for goods and services is likely to differ from region to region, depending on the country's infrastructure and prevailing culture. Credit card or prepaid card-based payments have proven to be highly successful in some markets. In developing economies, where mobile handsets act as a welcome substitute for a clunky PC and an sluggish dial-up internet connection — such as in the Philippines — consumers have traditionally suffered from poor terrestrial infrastructure. SMART Communications, the mobile communications company with the most subscribers in that country, recognised this apparent early adopter/laggard contradiction. By taking advantage of widespread mobile adoption and the supporting networks, they built a mobile payment service with a broad service reach.

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Mobile payments should not be confused with so-called ‘micro-payments’, which are defined as those of such low value there is little business justification for processing them. While they work just fine when charging for pre-paid mobile airtime or for downloading ring tones and the like, pre-paid subscribers have many payment choices when it comes to reloading their airtime. Most of these are credit card-based and have failed to excite the industry because credit cardholders and prepaid subscribers are almost diametrically opposed to one another when you compare their ages and creditworthiness.

There is a point, however, at which payments cross the threshold where processing becomes affordable. And that threshold is drawing close.

New technologies such as 3G present a new dimension to operators, along with a potentially broader service range. And, if taken up by subscribers, new 3G services will create a demand for an alternative to airtime account payment methods.

Prepaid airtime is already becoming a currency (called m-Money) that can be used to purchase additional services. To develop their businesses without regulatory interference (under the terms of the EU’s e-money rules, European mobile operators can avoid being regulated as banks, provided they don’t advance credit or pay interest on prepaid balances), mobile operators may need to find an alternative service — especially as the value of individual payments increases.

One approach is to launch an ‘m-Wallet’ account with the support of a bank. A few operators have been successful in this, the most notable being, again, SMART Communications in the Philippines. In developed markets where all of a mobile operator’s subscribers are likely to be bank customers, access to retail bank accounts is an option, and Vodafone New Zealand has successfully explored this avenue.

Through the micro-payment barrier and beyond

To date, the obstacles to mobile payments have included a lack of universal telecommunications standards; a focus by mobile operators on growing their businesses through increasing subscriber numbers and airtime; an excessive focus on the youth market; financial industry concerns that penetration of the industry by mobile operators will mean sharing revenues; and previous initiatives not having been driven by payments industry experts.

It’s been difficult for mobile operators to capitalise on the youth market, which tends to be driven by fashion and a love of gadgets rather than by a need for payment convenience — after all, by the time they’ve bought the latest handset, paid for their music and ring-tone downloads, bought computer games, clothes and cinema tickets, young subscribers don’t have much income left to dispose of. Operators compete not only with each other but with these other suppliers and marketers of commodities to the youth market. The segment generates plenty of micro-payments, which are normally charged to their airtime account.

To penetrate the higher income groups requires a greater investment in services with a longer payback period. This segment can deliver a sustainable and higher revenue stream to banks and mobile operators alike. However, there is a higher business risk because of the level of investment required.

Strengths and weaknesses

Mobile can be both a delivery channel and payment instrument. As a delivery channel, mobile complements existing telecommunications channels and is expected to draw traffic away from them. As a payment instrument, mobile will become a substitute — and eventually a replacement — for a plastic card. Initially, handsets will imitate plastic cards but, as handsets have added functionality, they can be expected to evolve away from being mere card substitutes.

A mobile’s strengths are its connectivity and the fact that it’s nearly always with the owner. Mobile phones are highly personal devices and are hardly ever shared. They’re becoming more and more affordable and increasingly multi-function. But they do have their limitations, and these include processing capacity; their physical size, which restricts the display and keyboard, bandwidth and connectivity; and the length of time their battery will remain charged.

Most of these constraints are already being addressed. Processing capacity will significantly improve, bandwidth and connectivity are being enhanced as 3G rolls out and, longer term, we may see a time when a handset is plugged into a docking station and it becomes the ultimate PC with wireless capability.

About Peter

Peter Goldfinch, GFG Group's General Manager South East Asia, is a respected analyst and commentator on global trends in payment technology.

One of the original founders and shareholders in GFG Group, Peter has a background of more than 23 years in the information technology industry, most of which has been involved with consulting and systems development for banking and finance customers in 25 countries.

He has particular expertise and experience in payment systems, including mobile payment systems. His career highlights include pioneering work on the first ATM and EFTPOS networks.

In the mid-1990s, he played a key role in the introduction of credit and debit cards into the Russian market, working with GFG's customer SBRF.

About GFG

GFG Group is a highly-specialised payment solutions company, providing its clients with products, advice, and systems integration and outsourcing services. Accredited by the World Bank, the company has established a global presence over the last decade - delivering leadership payment solutions to more than 50 customers in over 40 countries.

A key element in GFG Group's success is its focus on development and investment in five high-demand payment solution areas:

- Card Management Systems
- Mobile Payment Solutions
- Customer and Merchant Loyalty Systems
- Managed Services
- Payment Tools

The company's core research and development team is based in Auckland with consultants and technical staff located in the international offices to provide front line 24 x 7 support for customers in multiple geographies.

Security is a key differentiator for GSM handsets when compared with standard PC technology. finFacts.ie, quoting a Forrester Research survey, says credit card security (52%) is the top obstacle hindering mobile commerce. The ability to secure encryption keys and support cryptographic functions on a security identity module (SIM) makes mobile payments significantly safer and therefore more attractive. For a mobile payment service to work, it must offer convenience, efficiency and integrity; meaning customers must trust the service. The integrity of any payment network is crucial to its acceptance. Confidence in payment services and in the banks must be protected. There is an objective for mobile payments to support non-repudiation (cryptographic assurance that a message sender cannot later deny sending a message or that the recipient cannot deny receipt). As a minimum, this would be to the level supported by EFTPOS networks. However, by supporting public key infrastructure (PKI) and digital signatures, mobile payments can move further up the payment value chain.

Forrester's research shows fear of a 'clunky' user experience (35%) is another top impediment to the adoption of mobile as a payment channel. Many attempts have been clunky and have even involved a second step, such as a call back process that may be interactive voice response (IVR)-based. Many have attempted to copy a browser-style interface where it is necessary to key in long identification numbers or card numbers.

Mobile payments require an interface allowing short and precise payment requests and minimal key strokes in the response: in effect, 'yes' or 'no' with entry of a PIN for authentication.

Who pays and who makes money?

There is a belief among the banks that, if mobile payments do take off, they'll be left with under-utilised EFTPOS or ATM infrastructure that have taken them years to develop. 'Cannibalisation' though can largely be seen as an excuse rather than as a hurdle. After all, ATM, EFTPOS and phone banking services are as much as two decades old and the internet does not represent a significant amount of effort to the banks, except where they have become involved in card scheme services such as Verify by Visa. However, if cannibalisation does occur, an expensive channel will have been substituted by a less expensive new channel — a natural advancement, by which efficiency drives out the old and promotes the new.

Critical success factors

It's important in all markets for mobile payments not to become dependent on a particular type of handset, but particularly in those markets where there's a slower turnover in phones. No scheme must become reliant on a single manufacturer's range of devices and, in mobile payments, barriers to all subscriber participation must be avoided.

The service must be open to all subscribers. This requires the support of the majority of financial institutions and operators in each market. Mass-market penetration is the key to subscriber and merchant acceptance. Even if you pair up the dominant bank and mobile operator in a market, the crossover factor will still reduce the potential market to less than 20%. Initial payments are expected to be of the 'pull' variety, where merchants send a payment request rather than the payment being subscriber initiated. The latter will develop at a slower rate because subscribers are likely to be hesitant until confidence in the service builds up.

As banks have not led the way — and both Visa and MasterCard have taken a narrow view because they're under siege both by regulators (who may force a marriage of mobile operators and banks) and various merchant organisations — mobile payments promoters should instead look to the operators.

Operators must move mobile payments to an environment in which banks take ownership without them needing to give this new payment channel much additional attention.

Banks who attempt to go it alone without operators will find success elusive. Operators who attempt to go it alone without banks will also find success elusive. Working together, leveraging each others strengths in partnership will deliver success.

When the value of mobile services grows to significantly, new payment methods may be enforced. Perhaps the Economist's busker can stop collecting coins in his hat sooner rather than later.