The Banker

MAY 2013
SPECIAL REPORT

THE FUTURE OF MOBILE MONEY

Successful models emerge

WHO'S WHO IN M-PAYMENTS?

WINNING SOLUTIONS

MOBILE MARKETING

DIGITAL WALLETS

THE US MIGHT BE AHEAD IN TERMS OF CONCEPT, BUT EUROPE AND ALSO JAPAN AND AUSTRALIA ARE WAY AHEAD OF IT IN THE USE OF THE MOBILE APP AS A MARKETING DEVICE ***Rod Witmond, page 16***

The Banker

Published by Financial Times Ltd, Number One Southwark Bridge, London SE1 9HL, United Kingdom
Tel: +44 (0)20 7873 3000. Editorial fax: +44 (0)20 7775 6421 Website: www.thebanker.com

One-year subscription rates: £645* – Full access to TheBanker.com and The Banker magazine. *VAT will be charged if applicable

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Printers: Wyndeham Roche Limited **Distribution:** Seymour Distribution Limited, 2 East Poultry Avenue, London, EC1A 9PT. Tel: +44 (0)20 7429 4000
Subscriptions and Customer Services: Financial Times, CDS Global, Tower House, Lathkill Street, Sovereign Park, PO Box 5891, Market Harborough, Leicestershire LE94 7ZT
tel: +44 (0)1858 438 417, fax: +44 (0)1858 461 873; e-mail: ft@subscription.co.uk
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Registered Number: 00202281 (England and Wales) ISSN: 0005-5395

Registered office: Number One Southwark Bridge, London SE1 9HL, UK

THE FUTURE OF MOBILE MONEY
Introduction

Mobile money, including banking and payments, is encroaching into the everyday life of the consumer. Monetising the business is still proving difficult, but thanks to the abundance of products available already, tangible business models are slowly emerging. Duygu Tavan reports.

OFTEN, NEW TECHNOLOGIES may seem a little too far-fetched for current market models, but for the mobile payments and mobile banking world, this is no longer the case. Granted, many technologies, such as near-field communication, have now been around for many years, and for much of this time, many high-profile figures from the payments industry have been claiming that 'next year will be the year of NFC'. But as more and more technologies come together, business models that may have started as closed-loop systems are linking with others to form a bigger web of connected payments. This may mean that NFC's time is soon.

The smartphone is, of course, at the heart of this evolution. In this regard, personalised and real-time marketing and virtual wallets are not just the future of big business. They are already a viable proposition, and one that looks set to blossom in the near future.

But while mobile banking and payments may be getting more and more ingrained in consumers' lives, as well as the business models of banks and vendors, monetising mobile money is still proving to be a difficult task. In this special report, we consider three pillars of mobile money on smart phones: personalised, localised and timely mobile marketing; the rise of the digital wallet; and the various business models that are emerging that will influence where the mobile money market is heading.

PERSONALISED MARKETING

For some, it may be an uncomfortable thought that every movement, purchase and communication they make on their mobile phone leaves behind a data trail that is being analysed by various industry participants, such as banks or specialist providers, to unlock new business potential.

This comes at a time when the card industry's margins are under pressure, especially in the US, where market forces and incoming regulation have impacted interchange fees. In the case of the US, it was the Dodd-Frank Wall Street Reform and Consumer Protection Act that placed a cap on debit card interchange fees of 21 cents – with a little leeway to cover fraud costs – less than half the previous average of 44 cents. This led banks to cut back on their loyalty schemes, as most card issuers used to fund these schemes from the card fees they charged. This does not mean that competition has scaled back, however. Indeed, the opposite is true, and card issuers have started searching for alternatives, as John Beck reports later in this report.

What may be bad news for card issuers has created market opportunities for others, however. Vendors that can act as a gateway between the merchant and issuer, or who can aggregate and analyse transaction data to enable the merchant and bank to offer personalised, relevant and timely offers to card users, have been growing their business of late.

Whichever model is used – the consumer will have to opt in to the service, meaning pushy marketing campaigns become irrelevant. This issue is also linked to regulation about information access and data management. Steps are being taken, but a prevalent approach has not yet emerged.

BUSINESS MODELS

Although sometimes used interchangeably, there is a difference between mobile and digital wallets. This interchangeability often comes from the fact that a digital wallet can also be downloaded as an app to be used as a mobile wallet. The main difference between the two, however, is that digital wallets are pitched as making online shopping easier as the shopper's card details are saved on the wallet and do not need to be typed in on to a website when purchasing something. These digital wallets, which appear as an icon at the checkout process, also make use of cloud computing and thus enable access to the wallet on any internet-connected device.

As digital wallets only require the user to register their card details once, they should ease consumers' worries about how secure it is to make online transactions. Put simply, the more people trust and use digital wallets, the more transactions will happen and thus, the more money the business merchants will make.

While industry giants Visa and MasterCard, among others, are working on their propriety digital wallets, some headway is being made on a more local scale. In Turkey, for instance, there is a so-called interbank

card centre, abbreviated as BKM in Turkish, that includes members from the country's major banks. These banks and bankers all work together on common platforms – while also launching their own wallet and other payment services. This system has worked because the whole industry is able to move forward quicker while adopting common standards and guidelines, and also because the BKM wallet can be used by anyone regardless of the lender they bank with or the outlet they are using for the transaction.

In Europe, meanwhile, EBA Clearing, a payment infrastructure company, has launched MyBank, which is pitched as a pan-European solution to accelerate and enable online payments.

NASCENT MARKET

When it comes to digital wallets, the market, just like that of mobile wallets, is still in infancy. Big brand names such as Google, Visa and MasterCard have been talking about mobile wallets for a while. This year, they are set to launch their digital wallets, a development in the market that will mark a significant step in the evolution of how consumers pay, as Jane Cooper reports. Banks, too, have rolled out wallets with a greater focus on banking, as opposed to just payments. All these developments mean, however, that there will be a number of different wallets to choose from, "particularly in the beginning, when providers are all experimenting to find winning combinations", according to Rick Oglesby, a senior analyst at research and advisory firm Aite Group.

The winning combination has not yet been found. In the mobile wallet space, it is the telephone and mobile network operators as well as financial services firms that dominate the market. Start-ups are coming to the fore, and while these tend to focus on niche services that cannot match the scale of the existing big brand names, their market developments are shaking the industry.

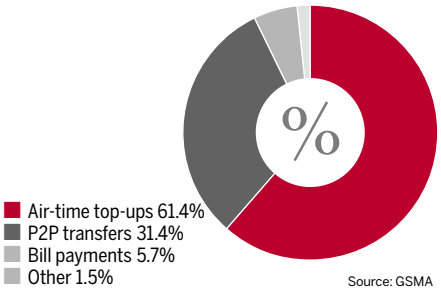
As Dan Barnes writes in this report, the development of mobile payments is primarily driven not by demand from potential clients, but by the search for reduced costs or increased revenue that it can offer the payment system operator. In this regard, it is not yet clear what the leading solutions or business models will be, but investments into the sector continue, and some business models are starting to emerge, such as special merchant deals.

In some cases, the mobile phone is turned into a payments terminal, the point of sale (POS). Examples include Square in the US and iZettle in Europe. Typically, there are two models for this business proposition: the mobile phone as a POS where a merchant is typically swiping a card though a mobile device such as Square; and the mobile phone at a POS where the consumer uses their mobile device to pay.

It is hard to quantify a market that has potential but has not yet reached mass adoption. To take just one example, NFC technology has for some time been almost synonymous with mobile payments. It has also been around in Japan and South Korea for years. While these countries are ahead of the curve when it comes to NFC adoption, even in innovation- and technology-driven Asia, NFC has not gained traction.

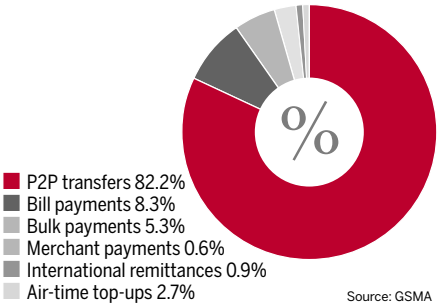
NFC adoption may seem to be making slow progress compared with the speed of other technology-related devices or systems, but when banks, network operators, today's start-ups and others have worked out the business models that work for them, the future of mobile money will be clearer. TB

Mobile money products – global product mix by volume (June 2012)



Source: GSMA

Mobile money products – global product mix by value (June 2012)



Source: GSMA

WHICH SOLUTION WOULD CONSUMERS PAY FOR?

	Bank stores loyalty cards and converts points to cash	Bank offers spending analysis tools	Bank offers relevant third-party offers	Bank stores key documents in a virtual vault
UK	64.6	56.1	54	57
UAE	67.7	61.2	49	56.1
Poland	61.8	66.7	53	47.4
Mexico	62.8	61.3	46.4	57.2
India	65.3	58.7	43.6	45.2
Hong Kong	67.2	58.3	52.6	50.7
France	64.1	55.4	48.7	63.9
China	74.6	56.1	44.2	46.5
Canada	62.6	58.5	56.9	54.9

Note: Level of interest obtained by asking respondents to nominate their top 3 solutions. Rank 1=100, rank 2=50, rank 3=25. Average shown.
Source: PwC Digital Tipping Point Survey 2011

DIGITAL WALLETS OPEN UP
E-commerce

As consumer spending increasingly moves to online, so too do payments, with digital wallets becoming embedded in the payments culture with the aim of making online transactions both convenient and secure. Jane Cooper reports.

MANY IN THE PAYMENTS INDUSTRY have long imagined a world without leather wallets or the plastic cards inside them. And now that vision is becoming a reality as numerous digital wallets are being rolled out to consumers. Visa and MasterCard are rolling out their digital wallets this year, a significant step in transforming how consumers shop and pay, adding to the proliferation of options already out there.

"It is an emerging space and solutions are being launched every day," says Zilvinas Bareisis, a senior analyst at financial consultancy Celent. Among these solutions are those where the wallet is stored in the cloud and can be accessed from a mobile device, or wallets where the payment credentials are stored on the phone itself.

CHOOSE YOUR WALLET

Rick Oglesby, a senior analyst at financial advisory Aite Group, points to the wide variety of solutions available. These include bank wallets that focus on mobile banking capabilities, reward-focused programmes, or wallets tied to specific retailers. "There will be many different types of wallets to choose from, particularly in the beginning when providers are all experimenting to find winning combinations," says Mr Oglesby.

Aside from wallets designed for phones to be used in the physical world at the point of sale, there are digital wallets being used to make e-commerce more convenient. They are the virtual equivalent of a traditional leather wallet and act as a repository for a consumer's various cards. Name, address and card details can be stored in the cloud and accessed from any device, whether it is a desktop, tablet or smartphone. This kind of wallet would be familiar to online shoppers on Amazon, which allows them to select one of their payment cards from a list, choose the correct shipping address and check out. But if they go to another retailer, they have to enter their credentials all over again.

AS A COMPANY, THE ENEMY FOR US IS CASH

Jorn Lambert

Jorn Lambert, group executive of digital convergence at MasterCard Worldwide, argues that consumers are uneasy about the proliferation of solutions and having their credentials stored in many places. "Security and convenience are top of mind," says Mr Lambert. In the physical world, MasterCard has achieved this process over a number of decades as the payment credentials are represented on a plastic card and can be accepted at most retailers. "We feel we need to provide the same solution to consumers in the digital space," says Mr Lambert.

This year, MasterCard's MasterPass and Visa's V.me are being rolled out to avoid this so that customers can store their card details and check out at any online retailer that carries the MasterPass or V.me button.

CONSUMER CONVENIENCE

Mr Bareisis explains that these solutions address the inconvenience of typing in card numbers every time they shop with a new retailer online, a process that is even more cumbersome on a smartphone. "It is also attractive to merchants," says Mr Bareisis, as it minimises the dropouts at the final checkout stage so the conversion rate to a sale is higher.

MasterPass was launched in February 2013 with the solution being rolled out in Australia and Canada. The US and UK will follow suit later this year. Likewise, Visa is in the process of rolling out its V.me solution. It was launched in 2012 and Visa announced that it had been adopted by more than 50 financial institutions. In Europe, the V.me digital wallet is scheduled to be rolled out across the UK, Spain and France this year.

"We've seen incredible interest from our retail partners and member banks and it is clear that they see the potential [of V.me] to offer a simplified payment experience that's optimised for use on smartphones and tablets," says Anne Head, vice-president of Visa Europe. "V.me by Visa is offered to consumers through their banks: that's a unique and important point. We know from our research that that's what people want: not another independent service, but a trusted addition to the portfolio of payment options available from their issuing bank."

CARD BYPASS

There are other solutions that have been launched this year that make it easier for consumers to shop online without entering their card details every time they pay a new merchant. One such solution is MyBank, launched in March 2013 by EBA Clearing, the pan-European payment infrastructure. It enables consumers across Europe to pay online retailers via online and mobile banking.

MyBank is not a digital wallet, because it does not house card details in a digital repos-

itory, and it bypasses the need for cards altogether. The MyBank option means that the checkout button takes the consumer to their online banking platform. Rather than entering their bank details with numerous retailers and those who they pay their bills to, the payment can come straight from their bank account with the same security as an online banking payment.

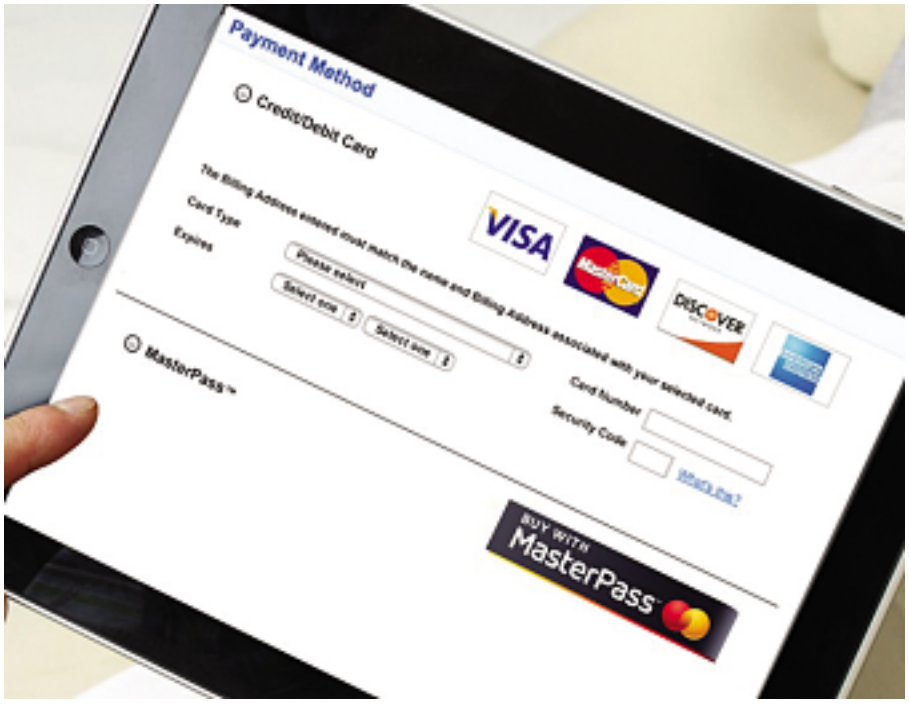
John Broxis, a director at EBA Clearing, points out that with other payment solutions – whether it is a payment card or digital wallet – the funds eventually come from the bank account anyway. He explains that consumers do not have to subscribe to the MyBank solution as they use the existing passwords from their online banking platform. The core online and mobile apps of the banks are already using a secure infrastructure so the MyBank solution does not need a massive hardware rollout, he says.

"We are not marketing this to merchants and consumers," says Mr Broxis, explaining that the solution is being targeted at banks, which will offer the solution to their individual and merchant customers. "We set it up as something that the banking industry can use to promote online payments," he says. The solution is licensed to the banks and it is up to the banks to decide upon a fee structure for the solution, explains Mr Broxis.

The MyBank solution is built using an online banking infrastructure that already exists. Other providers have likewise sought to leverage existing infrastructure to fulfil a certain need. PayPal, for example, has built a model where it functions as a layer over the existing payment infrastructure of bank-to-bank payments and card payments. It revolutionised e-commerce by allowing buyers and sellers to transact via the PayPal button, even though the funds were originating from a bank account or a payment card.

COMPETITIVE ISSUES

While it has been the darling of the e-commerce world, PayPal's venture into point-of-sale payments in the physical world has met with resistance from the incumbent card networks. Bill Carcache and Tulu Yunus wrote in a Nomura report: "The incumbents will do everything in their power to prevent PayPal from riding on their rails without extracting a toll."



Pass card: MasterCard's MasterPass is being rolled out in countries around the world, allowing customers to store their card details and check out at any online retailer that carries the MasterPass button

> People are coming up with clever and sophisticated, and overly complicated solutions when they are trying to do something basic. This proliferation is a problem. Having a thousand different ways to pay is not helpful
>
> *John Broxis*

From June 2013, MasterCard will be introducing an access fee for staged digital wallet operators, which act as a repository for other cards. The fee will apply to payments in the US funded by MasterCard credit cards.

Staged wallets such as PayPal store other card details and the transaction is a two-stage process. Mr Bareisis explains that a consumer may select their MasterCard credit card and then pay through the PayPal button. PayPal settles the transaction with the merchant and then separately behaves as a merchant with the card issuer. Via the MasterCard network, the card issuer pays PayPal and then the card issuer presents the consumer with a bill.

The problem for the consumer is that the merchant is listed as 'PayPal' on the credit card statement and their card issuer – even though the funds came from that card for the transaction – cannot tell them the merchant. It has also caused problems with people collecting their rewards for using their cards at certain retailers. This has caused confusion for consumers and a headache for issuing banks. MasterCard has now issued rules on transparency to digital wallet operators to overcome these customer service issues.

This is just one of the issues that arises from MasterCard and Visa cards being stored in other digital wallets. And now that there are the V.me and MasterPass repositories, which can store cards from other networks, there are other competitive issues that may arise.

The digital wallets are free for consumers to use and in theory a consumer could use the Visa digital wallet, but all their transactions could be made from MasterCard-branded cards or vice versa. Both solutions are open for consumers to store any network branded cards in their wallet. When asked about allowing other cards in the MasterPass wallet, Mr Lambert says that it is a move that was made in recognition of consumer expectations and consumer behaviour: "It is really recognising consumer demand," he says.

This is a point on which Ms Head at Visa Europe agrees. When asked if allowing cards from other payment networks in the wallet causes competitive problems, Ms Head replies: "Not at all. Choice is essential: people aren't interested in a restrictive payment experience. Being able to use any card in the V.me wallet makes it an easy and comprehensive way to pay online, whichever card you want to use. Consumers using a service they trust from a bank they already have a relationship with, and they're using Visa's payment network and retailer relationships to do so. That's a great place for us to be: at the heart of the new payments ecosystem." »

In Canada, clients are leading the way

Charaka Kithulegoda, CIO of ING DIRECT Canada, talks about working with IBM to develop a mobile banking capability that best serves clients

Charaka Kithulegoda, CIO, ING DIRECT Canada

Business is about the client. But for companies that have forgotten this simple mantra, mobile banking has served them up a stark reminder. The rapid adoption of mobile demonstrates how strong the demand for convenience has become in banking relationships – and through mobile, our clients are telling us what they want, how they want it, and when they want it. They want a seamless experience, regardless of the medium. They want innovation and ease-of-use. Banks help people manage their financial lives, why not help them save their time and money too!

"ALL IN" ON MOBILE

With this in mind, the team here at ING DIRECT Canada started to seriously consider the role mobile banking would play in our overall channel mix. As a pioneer in the Internet banking space, we had seen these indicators before, and knew we needed to go "all in" on mobile. In late 2009, we teamed up with IBM to develop a long-term, mobile business and technical architecture that could offer consistent value to clients, support multiple mobile devices, fast-track the delivery of new features, and do it all securely.

We're constantly assessing client needs and desires – and acting on these insights to enhance our mobile platform. In one example, as soon as regulations in Canada provided the option of processing cheque images, we moved quickly to kick off a pilot giving select clients the ability to use their smartphone's camera to take a picture of a cheque and deposit the funds into their ING account – with just a few clicks.

> "AS A PIONEER IN THE INTERNET BANKING SPACE, WE HAD SEEN THESE INDICATORS BEFORE, AND KNEW WE NEEDED TO GO 'ALL IN' ON MOBILE."

SMALL SACRIFICES, BIG SAVINGS

More recently, we responded to consumers who are interested in visualising their banking habits. In a recent ING DIRECT Canada survey, 52 percent of Canadians told us that if they were able to better visualise their spending on non-essential purchases, they would change their spending habits. In response, we rolled out an exciting new mobile feature called Small Sacrifices. It's a way to actually see the small savings you can make by deferring purchases. So instead of spending $6 on a latte, a client can deposit that money directly into their savings or retirement account with just a few taps.

GOING SOCIAL

We also introduced the Orange Snapshot on Facebook app, which allows clients to securely access balances, receive Orange Alerts, and check our competitive rates, right from the most popular social networking site in the world. This is a cornerstone of our omni-channel banking approach: No matter how our clients interact with us, they get a consistent brand experience and the same great service.

Our flexible, efficient mobile platform allows us to roll these new features out quickly. But security and privacy continue to be top of mind in this business, which presents an interesting challenge – while clients want security, they don't want the hassle of signing in each time. This is a delicate balance between security and simplicity. So, we implemented a token-based authentication system within our mobile banking application. It gives our clients the ability to perform basic, low-risk tasks such as viewing their accounts, paying bills, and emailing money, without the need to enter their username and password each time. We've also recently launched an internal test that uses biometrics to access account information instead of a traditional password. We're pursuing innovations in paperless enrolment, voice banking, NFC/mobile payments, video chat as well as Web TV apps.

A MOBILE SUCCESS

Our results continue to validate our strategy – more than 12 percent of all money transfers, 18 percent of all bill payments, and 17 percent of email money transfers are now conducted on mobile phones. We have nearly two million customers and our app has been downloaded more than 500,000 times since its 2010 launch. Whether it's online, in our cafés, on a smartphone or Facebook, ING DIRECT Canada continues to empower the client by anticipating their needs – and interpreting them into features and functions in a consistent, seamless way that drives the right banking experience.

ONE WALLET, MANY CARDS

Mr Oglesby says of the issue of having other cards in a wallet: "The trouble is that there is a fine line between a wallet and a payment network. The key differentiators between wallets will be in the value-added services – services other than payment – that are offered by the wallet. As the payment networks are designed to deliver payment solutions only, a wallet that wants to offer services above and beyond payment has to build out some network capabilities to support the value-added services, which in many ways means building out a parallel payment network."

In a world where card issuers battled to have their card at the 'top of wallet', now there is an additional battle, in not just having the card at the top of the digital wallet, but also having a competition between the digital wallets themselves.

Another competitive force at work is how the digital wallets will converge in the physical space. For now they address the greater need for convenience in online shopping, but eventually with the power of smartphone technology, the wallets will be able to converge with payment solutions in the physical world.

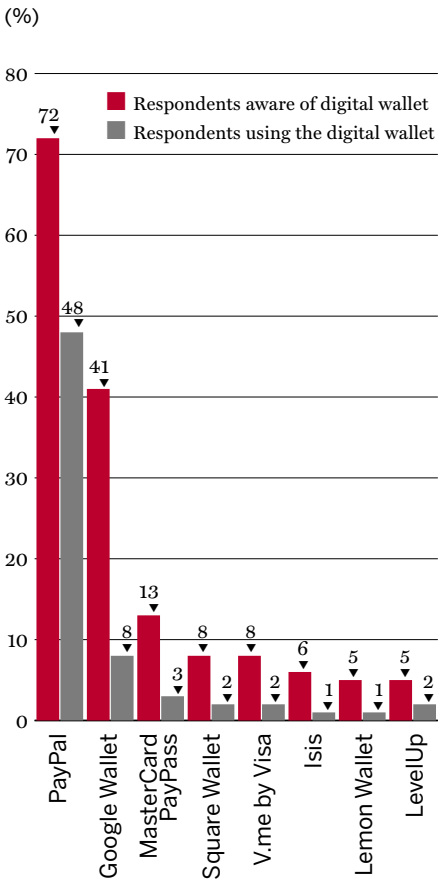
Of Visa and MasterCard's digital wallets, Mr Bareisis says: "Both face challenges in bringing those wallets to the point of sale." The challenge is how to integrate the contactless technology of Visa's payWave and MasterCard's PayPass into the wallet. "So far that has been the chasm that has been difficult to cross," says Mr Bareisis.

Ms Head says of Visa's plans for the digital wallet: "Beyond scaling V.me, we're also working hard to address another key trend: consumers' desire for all of their payment experiences – online, mobile and face to face – to be available through a single platform. V.me will become the hub for our whole offer and we're working to build in other services from the Visa portfolio, such as contactless payments at the point of sale, Visa Personal Payments and Visa Alerts. For our member banks, this will provide access to a comprehensive suite of services that will offer an easy way to benefit from the scale, security and reliability of Visa."

COMPETITION FOR CASH

With numerous other wallet solutions available, including those from LevelUp, Square and Google, there is plenty of competition in the market. When asked to comment on the competition and his competitors, Mr Lambert says: "As a company, the enemy for us is cash," adding that as part of the structural trend towards electronic payments, the goal is to make the pie bigger and to displace cash.

Consumer awareness and usage of digital wallet offerings in the US



Source: comScore Digital Wallet Road Map 2013

Looking at the competition in terms of V.me versus MasterPass is the wrong debate, says Mr Lambert, explaining that the real issue is the transformation of consumer behaviour. "Consumers want a richer and different user experience where the device can provide value-added services that plastic cannot," he says.

It may not be a case of consumers choosing one wallet over another; it is likely that they will have numerous wallets. Mr Oglesby says: "Many consumers already have more than one digital wallet. [Apple] device owners have the iTunes wallet, Amazon customers are enrolled in Amazon payments, eBay customers are enrolled in PayPal, Android device owners are enrolled in Google Wallet. The Starbucks mobile payments solution only works at Starbucks. At least in the initial stages it appears very much as though consumers will have more than one wallet, not because they want lots of wallets, but because they don't think of it as a wallet, they think of it as a way to pay at a particular merchant."

Mr Oglesby adds that consolidating consumers to a smaller number of wallets will be a big challenge. "Keeping in mind that in a digital form, a wallet is just a bunch of electrons, it's not physical, it doesn't need to be carried around. Many payments companies seem to believe that the rules of leather wallets will still apply in the digital world, but that doesn't seem to be the case."

Mr Broxis says of the proliferation of solutions in the industry: "People are coming up with clever and sophisticated, and overly complicated solutions when they are trying to do something basic. This proliferation is a problem. Having a thousand different ways to pay is not helpful." He adds that he expects to see consolidation of the solutions in the future.

Looking to the future of the digital wallet industry, Mr Lambert at MasterCard makes the distinction between acceptance and distribution. "On the acceptance side, there will be only a few players," he says, as it is not practical for a merchant to support 50 different checkout buttons, nor can a mobile screen with limited space display these easily. On the issuing side or the distribution side, Mr Lambert says he sees proliferation as a good thing and wants to foster healthy competition.

With the proliferation of wallets, Mr Bareisis's view is that consumers will use a number of wallets. "There won't be one winner to take them all," he says. For now, the numerous combinations of how consumers can shop and pay with their mobile is a sign of a nascent, yet dynamic, industry that is evolving quickly. TB

Getting on top of the Mobile Wallet

Monitise Group's CEO analyses the future of virtual wallets in consumers' lives

Alastair Lukies, Monitise Group CEO

New war, new wave or one-hit wonder? Whether or not you think mobile wallets are transforming how we bank, pay and buy goods and services, a global shift is well underway.

Forrester Research estimates mobile payments will reach USD90bn by 2017 while by 2020 Visa Europe predicts that half its transactions will be via mobile. That is not inconsequential when you consider that in the 12 months ending June 2012, Visa cards in Europe were used to make purchases and cash withdrawals to the value of €1.8 trillion. A report last month from Transparency Market Research forecast the global mobile wallet market alone will grow at a compound annual rate of 30.7% between 2012 and 2018, resulting in revenues of USD1.6 trillion.

WHAT EXACTLY IS A MOBILE WALLET?

A mobile wallet is simply a secure way of paying for things via mobile. It may involve money moving from your bank account, card account or maybe some form of virtual account. The form of payment a consumer chooses will be driven by factors such as price, convenience, trust, acceptance and loyalty benefits. The choice they make is really important to banks and other financial institutions, because this is the gateway to mobile commerce and it creates opportunities for new revenue sources, deeper customer engagement and enhanced brand loyalty. Yet this will only be the case if businesses have laid the right mobile strategy foundations. Why? Because no one is saying: 'I want a mobile wallet, where can I find one?'

The ability of a mobile device – feature phone, smartphone or tablet - to help consumers 'manage' their money on the move is unravelling in ways few imagined a few years ago. The opportunities beyond banking, when twinned with payments and commerce, make Mobile Money – how we can bank, pay and shop via our mobile – compelling for consumers and businesses alike. Food and retail brands have been among early movers. Earlier this year, KFC joined companies like Starbucks, Pizza Hut, Domino's and McDonald's in enabling customers to use their mobile to order and pay for meals before they arrive at an outlet.

"BY 2020 VISA EUROPE PREDICTS THAT HALF ITS TRANSACTIONS WILL BE VIA MOBILE"

UNLOCKING SUCCESS

Whatever sector is involved, brands cannot afford to lose sight of the fact that compelling consumer benefits, rather than technology, are key to success. While established and challenger brands are testing ways to digitise wallets, financial institutions are ideally placed to play a leading role. As an enabler in the Mobile Money space, we have seen firsthand at Monitise how consumer engagement with mobile banking apps surpasses what banks ever experienced via branches, call centres, ATMs and online. For financial institutions, this effectively means viewing mobile banking as a foundation onto which to payment and commerce capabilities are laid.

The more engaging these enhancements are for consumers the more easily they take their place as the mobile wallet of choice. When RBS and NatWest recently launched new person-to-person payments services via their existing mobile app, it was downloaded by 1.7m consumers in just a few weeks. Examples like this reflect drives to defend and extend current business. Across the industry, this will be aided by leveraging the unique capabilities financial institutions already have. These include: consumer trust in banks and credit card companies; the widely-held view that financial institutions are the most experienced and trustworthy at handling personal and financial information; consumer data spanning financial habits, demographics and transaction activities; dependable, regulated and secure infrastructure; and established credentials in customer service.

POWER AT YOUR FINGERTIPS

The pace of innovation will accelerate as consumers integrate mobile into every aspect of their lives. We have never had more power at the touch of a finger to find and engage with what we want. In the words of web thought leader Mary Meeker: The mega-trend of the 21st century is the empowerment of people via connected mobile devices. The question to answer is: Will this mobile wallet functionality help me intuitively do some action or activity better than I would have otherwise done? Answer that decisively and the war will be won, the wave will be rode and consumer engagement for a business will be taken to a whole new level.

Tapping in: the number of consumers with near-field-communication-enabled phones is on the rise

WILL MOBILE NFC EVER TAKE OFF?

Near-field communication

Near-field-communication technology for mobile payments has seen huge investment and been much feted, but is yet to take off in the mainstream. What will it take for consumers to take to this new way of paying for their purchases? Jane Cooper reports.

PAYING FOR A COFFEE OR A NEWSPAPER could not be easier. Simply tap your mobile phone against the reader and it is done. For the consumer it is easy, but behind this simple alternative to cash is a complex ecosystem of players that have been working for years to make tap-and-go payments a reality.

But near-field-communication (NFC) technology, which enables cards or phones to be tapped against a reader for payment, has not yet reached a tipping point of mainstream use. And as other technologies and solutions are being trialled in the marketplace, some are questioning whether NFC is even necessary for mobile payments in the future.

MAINSTREAM TAKE OFF

When asked if NFC will ever take off, Gary Greenwald, head of digital money services at Citi Enterprise Payments, says "yes, but". He elaborates: "NFC, particularly when tied to a smartphone, can underpin a very powerful consumer experience for commerce." The "but", though, is that the technology needs to be made easier. "NFC has much technical complexity to implement, including for bank issuers who must learn the new lingo of secure elements, trusted service managers, and payWave and PayPass applets [Visa and MasterCard's contactless payment technologies]," he adds.

Also, says Mr Greenwald, the business model remains unclear. "NFC payments bring additional parties into the ecosystem, including mobile carriers, original equipment manufacturers and SIM manufacturers, all of whom are looking for economic return on these investments. Without new economics, banks may see NFC simply as an additional expense with an unclear return," he says.

It is this ecosystem that has been the reason why NFC has not reached its tipping point, according to Reed Peterson, head of business and market development at GSMA, the global industry body for mobile operators. He explains that this ecosystem includes the device manufacturer, mobile operator, the issuing bank, the merchant acquirer, the retailer and the consumer. "It is a complex ecosystem that needs to come together in order to make it work," he says. Mr Peterson is confident, however, that this ecosystem is coming together.

INFRASTRUCTURE UPGRADE

Once the NFC payment is captured on the terminal, it travels in the same way as a card payment. But for that to happen, the acceptance infrastructure first needs to be upgraded so that all the terminals at retailers are able to accept mobile NFC payments. Samee Zafar, a director at consultancy Edgar, Dunn & Company, believes that that process is under way.

"Most new terminals come with contactless pads anyway. All terminals will have them in four or five years," he says.

And on the device side, there are now more NFC-enabled phones being put in the hands of consumers. GSMA's The Mobile Economy report projects that 50% of all smartphones will be NFC-enabled by 2015 and 1 billion SIM-based NFC handsets will be sold by 2016.

Samsung has introduced NFC to its phones and in February 2013 it announced that it would load Visa's payWave applet – which enables the mobile tap-and-go payments – onto its NFC smartphones. "Samsung devices enabled with Visa payment functionality will no doubt be a powerful product offering – especially in markets where paying with a mobile device is becoming commonplace," said Jim McCarthy, Visa's global head of product at the time of the announcement.

While Samsung has introduced NFC, Apple has not, an obstacle that is preventing NFC being available to all smartphone users. With each release of the latest iPhone, there is always speculation about whether Apple will include NFC capability and the company remains tight-lipped about its plans.

John Conlon, global head of innovation for mobile at Barclaycard, says that what Apple does will have an impact "but I do not think the world is waiting for [Apple] on NFC", he adds.

ASIAN MARKET

Of the handset market, Mr Zafar at Edgar Dunn says: "Asian device manufacturers are more appreciative of the NFC advantages." Samsung's home market of South Korea was one of the first markets to use mobile NFC. Likewise, Japan adopted mobile NFC before the US and Europe. However, while these Asian markets are cited as pioneers in NFC technology, usage is not widespread.

"At this moment, it is hard to say that mobile payments in Japan and South Korea are very successful," says KyongSun Kong, a Seoul-based analyst at Celent. She explains that in Japan 180 million NFC cards and chips have been issued. While there are 73 million NFC-enabled phones, only 33 million mobile NFC chips have registered users. "The monthly transaction volume of NFC payments, including not only mobile NFC but also plastic-based NFC payments, recorded 260 million in July 2012," says Ms Kong.

That means that the average monthly transaction volume per card or chip is only 1.5 transactions. "This is not a very active user base. The best one can say about this result is that the significant spending on building out mobile NFC in Japan and on advertising to promote the services has been an investment for the future when consumers may eventually take to the technology," adds Ms Kong.

Another form of NFC technology is the tag payment, an NFC sticker that can be activated with consumers' account details and then stuck onto a phone or another object. Ms Kong explains that tag payments do not need the same upgrade to the payment terminals as mobile NFC technology. "While the costs and time associated with deployment are low, the spread of the tag approach has been sub-par. Nevertheless, industry insiders expect that when the tag payment approach takes off, it will do so rapidly," she says.

These NFC stickers have been one way to migrate consumers from contactless card payments to mobile payments. Barclaycard is one issuer that has launched the PayTag, which is similar to a smaller version of a contactless credit card that can be stuck to a phone. In the same way as a contactless card, this sticker can be tapped against the retailer's payment terminal. Mr Conlon at Barclaycard describes PayTag as a bridging technology, which is part of the issuer's "journey to mobility". "It allows the consumer to pay with their handsets because NFC is not in all handsets at the moment," he says. He adds that he does not foresee that there will be a need for PayTag in a few years' time as he anticipates that NFC-enabled phones will be more commonplace.

NFC SCEPTICS

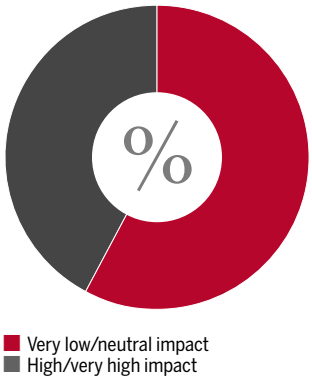
There are, however, sceptics who argue that NFC technology is not necessary for consumers to make mobile payments in the physical world. In its bid to move from online to physical-world payments, payments firm PayPal has introduced a solution at the point of sale (POS) that does not require the mobile device to make contact with a terminal. The cloud-based solution, which was first introduced to US retailer Home Depot in 2012, asks consumers to enter their mobile phone number at the checkout and then enter a passcode to authorise the payment.

PayPal president David Marcus predicted that NFC payments would fail to gain mass adoption in 2013. "The NFC payments debate will slowly die in 2013. Is tapping a phone on a terminal any easier than swiping a credit card? I don't think so – it's not solving a real consumer problem and it's not providing additional value to encourage me (or anyone else for that matter) to change my behaviour," he wrote in his blog at the end of 2012.

Mobile NFC payments could be viewed as the next stage in the evolution from »

Impact of NFC on card fraud and data security over the next three years

(% survey respondents)



Source: Aite

NFC HAS MUCH TECHNICAL COMPLEXITY TO IMPLEMENT, INCLUDING FOR BANK ISSUERS WHO MUST LEARN THE NEW LINGO OF SECURE ELEMENTS, TRUSTED SERVICE MANAGERS, AND PAYWAVE AND PAYPASS APPLETS *Gary Greenwald*

card payments and contactless cards as it builds on the existing electronic payments infrastructure at retailers. And with mobile NFC in physical stores, the tapping at the checkout terminal provides a way for the retailer to verify payment.

Mr Marcus at PayPal, however, jumps ahead and envisions a world where there is no need for there to be terminals at the checkout. He argues that the cash register will also go mobile. "In the old retail model, customers browsed in the aisle and paid at the register. This was partly because the registers were hard-wired to phone lines to gain the necessary authorisations. As we move to a world where even the transactions in a shop are transmitted on the back end via the internet, sales associates will be free to roam the stores and help their customers check out and pay from the aisle or even the changing room… and if they don't have the right size or colour in stock, they'll order it for you on the spot to be delivered direct to your home," he writes.

ALTERNATIVE TECHNOLOGIES

While PayPal demonstrates that there is no need for the mobile device to actually make contact with a terminal, there are other solutions being introduced to retailers. One solution is the Quick Response (QR) code, a bar code of square dots that can be scanned.

Ms Kong explains that one advantage of QR code and bar code payments is that not all smartphones have NFC technology, but they all have cameras. "Moreover the burden for stores is minimal because only the QR code must be supplied and the customer's smartphone will act as the payment terminal doing all the rest. Of course, there will be the deployment costs associated with a QR code-generating POS system, but such systems are already rapidly being adopted and attracting interest as a novel approach to mobile payments," she says.

Mr Conlon at Barclaycard adds: "We are strong believers in NFC, but we do not see it as the only technology." He explains that Barclaycard has tried different technologies and has been trialling QR codes in the US. QR codes suit certain retailers and the implementation is relatively simple for QR codes, whereas NFC requires a larger rollout, says Mr Conlon.

Coffee chain Starbucks in the US has also introduced QR codes so that customers can scan the code with their smartphone and pay for their coffee through a wallet app. Mr Zafar, however, is sceptical about how this technology can be taken from a closed-loop environment and scaled up into a serious global network. "[QR code technology] just does not have the power of NFC. You cannot really classify [QR codes] in the same league as NFC. The security is not comparable," he says.

TIME FACTOR

Mr Peterson at GSMA argues that QR codes have been successful in certain situations. Delta Airlines, for example, sends passengers a link to download a QR code on their iPhone, which is then scanned instead of a paper boarding pass. However, Mr Peterson argues that it is quicker and more convenient to tap a phone than it is to hold a phone and wait for the QR code to be scanned. In environments where queues need to be kept to a minimum, such as passing through subway turnstiles or boarding buses, Mr Peterson argues the seconds that NFC saves really count.

The same argument applies to other alternatives to NFC, such as fingerprint or voice verification solutions. Also, argues Mr Peterson, NFC is more user-friendly: "There is something very simple and understandable about tapping or paying by touching something," he says.

Ms Kong argues that NFC is necessary for mobile payments. When asked if NFC will ever take off, she says: "Yes, I believe so." However, she adds that there are five conditions that will pave the path for growth in the mobile payments market. These are: differentiating mobile payment services from plastic cards; increasing acceptance; promoting the use of mobile payments among consumers; rolling out multifaceted service offerings; and offering international mobile payments services.

There are also other advantages to NFC, as Mr Greenwald at Citi explains: "NFC is a great technology for POS physical-world payments and is likely to extend in the virtual world as PCs and tablets themselves become NFC readers. Imagine taping your NFC phone to your tablet to securely authenticate an e-commerce purchase."

There are other uses of NFC, such as being used as a replacement for hotel access cards or as a replacement for paper tickets. But NFC is not the only way to provide the consumer with a more convenient and enjoyable experience. Mr Greenwald says: "Whether [NFC is] the best technology remains to be seen, and it's definitely not necessary. As innovations such as secure cloud credential storage take off, multiple 'last mile' payment protocols will evolve more easily, whether QR codes, dynamic tokens or software-based NFC. In many ways, the payment mechanism is incidental. If you have a powerful mobile commerce application bringing value to the consumer, payment can even happen on good old plastic." TB

MOBILE MARKETING

GETTING PERSONAL *Mobile marketing*

Personalised and location-based marketing tactics could be a catalyst for higher usage of mobile payments and could, in turn, unlock new business approaches. John Beck reports.

Checking in at the check out: Citi's card-linked marketing – which is already airborne in Asia in countries including Hong Kong (pictured) – tracks transactions and generates relevant related offers via SMS

THE ONGOING ELECTRONIFICATION of daily lives – from consuming and using online apps, tools and services via a computer or mobile device, to the gradual decline of cash payments – means that almost every movement, purchase and communication that a consumer makes leaves behind a data trail of astonishing comprehensiveness.

Few institutions have more or better access to this information than financial services firms. Banks, payment providers and card issuers are still trusted with enough data to create a truly detailed picture of consumers' likes, dislikes, favourite shops and restaurants, comings and goings and much more besides. In other words: the consumer's individual profile.

Merchants, keen to make the best use of marketing budgets, are understandably keen to get their hands on this information. Imagine if, for example, fast-food chain McDonald's – rather than handing or mailing out offers to vegans, anti-capitalists, organic food fanatics and those that would not eat there, regardless of anything else – was able to detect when a once-loyal customer had begun to frequent Burger King for their fast-food fix, and target them with a 20% discount to tempt them back. It would not be an easy task for a burger chain alone, but identifying such an individual would not be difficult for a bank or other card issuer with access to years of transaction data.

GIVE AND TAKE

Times are tough in the card industry. Market forces and incoming regulation have had a serious impact on interchange fees. In the US, for example, the Dodd-Frank Wall Street Reform and Consumer Protection Act placed a cap on debit card interchange fees of $0.21 – with a little leeway to cover fraud costs – less than half the average $0.44 previously charged by card issuers.

So loyalty schemes and other perks, typically funded by issuers through these fees, have declined in availability. Many issuers, particularly in the US, decided to cancel their reward programmes or find another way to offer them in light of the interchange cap.

One solution is to get merchants to contribute towards loyalty programmes, in exchange for the extensive customer information banks have access to. Card issuers are not about to allow merchants to access their customer data, however. But at the same time, they may not have the time, technology or inclination to analyse it in the kind of way that would be useful to merchants.

As a result, third-party platforms, such as Cardlytics and Cartera Commerce, have emerged as a gateway, signing up merchants willing to put some of their promotional dollars into discount schemes and issuers willing to offer this kind of solution to their card holders. The third-party platforms then provide the technology to integrate the two firms.

Typically, once a merchant decides to launch a promotional campaign to a specific customer segment – individuals who have been shopping at its competitors, for example – the third party takes those criteria and integrates the issuer's card holder system accessing transaction data – usually in an anonymised way – to identify the desired customer segment. The issuer then presents the offer to the targeted customer, and the retailer pays a fee to the platform provider if it is redeemed.

GETTING PERSONAL

One of the most prominent examples is Bank of America's (BoA) 'BankAmeriDeals' service, which offers savings to customers based on their previous spending habits. The system delivers discounts and offers based on the consumer's past spending habits through the bank's online banking platform. If a customer decides to take advantage of an offer it is linked with their credit or debit card so that when they use it to make a purchase, the full cost of the purchase is paid at the point of sale and the discount is paid back to their account the following month.

The bank does not receive any extra income directly from either the customers or merchants involved. It does save on a conventional loyalty programme, however, and the system is likely to drive higher levels of card usage and boost account activity.

So far, the scheme is proving popular among customers, too, says a spokesperson for the bank: "We continue to see an uptick in the number of customers utilising BankAmeriDeals – the feedback is very positive. Our customers are saving approximately $1m a month."

BoA is not alone. Cartera Commerce, which operates a similar business model to Cardlytics, is working with three of the top four card issuers in the US, according to its vice-president of product management Andy Wolf. As for other card issuers, American Express has recently launched a personalised deals and offers element, while MasterCard and Visa have both been analysing customer data to help marketers in their targeted advertising efforts, with the latter even offering merchants the ability to send text messages to customers, based on their spending habits.

GOING MOBILE

Issuers and third-party intermediaries say that these new services should be a win-win-win for all concerned. But for many, this is only the first step on the ladder – the ubiquity of smartphones is providing data which will enable new levels of personalised marketing as well as a delivery medium.

"If I know you like to get coffee in the morning, then the best time to suggest that is in the morning when you're logging into the app on your mobile phone," says Jason Brooks, managing director of Cardlytics' UK Office. "We have this analytics engine data on past behaviour, which provides a very good sense of targeting. When you couple that with where somebody is at the time, it becomes even more powerful." He adds that in the US the firm has found that integration with a mobile app led to about a 45% increase in consumer engagement with and redemption of offers.

This kind of technology is being rolled out elsewhere, too. In the UK, Project Oscar – the mobile wallet project launched by telecommunications firms Everything Everywhere, O2 and Vodafone, and subsequently rebranded as Weve – is planning to concentrate first on mobile marketing.

Issuers also see promise in the technology. "The move to mobile… is a huge opportunity for us," says Joanna Lambert, the senior vice-president of strategy and business innovation with American Express. "Getting to that real-time, personalised, customised interaction between buyers and sellers is inevitable."

REGIONAL DIFFERENCES

Thus far the US – with a longer tradition of award and offers – has led the way in terms of card-linked marketing as provided by companies such as Cartera and Cardlytics. Both firms, however, have their sights set of expanding into Europe, with the latter already involved in advanced discussions with a variety of banks in four or five European countries and planning on a mid-year launch, according to the senior vice-president of talent management and international expansion, Rod Witmond.

"The US might be ahead in terms of concept, but Europe and also Japan and Australia are way ahead of it in the use of the mobile app as a marketing device," he says.

For some, card-linked marketing is already airborne. Citi's Centralised Offer Palette (COP) system, which currently operates in Singapore, Malaysia, Thailand, Indonesia, Philippines, Hong Kong, Taiwan and China, can read real-time transactions made by the customer and cross reference it against demographic data to generate an offer which is delivered to the customer via SMS, e-mail or both.

Francesco Lagutaine, the regional head of customer franchise with Citi, explains that this technology could, for example, be used to target a particular group of customers who regularly shop with a specific retailer and send them an offer when they spend at merchants in the vicinity of an outlet. Similarly, customers buying tickets with their card for Hong »

HOW OFTEN DO YOU USE YOUR MOBILE DEVICE TO SHOP ONLINE?

Country	Daily	At least once a month
Australia	6.6%	30.2%
Brazil	9.6%	31.4%
Canada	7.4%	28.2%
China	6.9%	42.3%
France	3.4%	20.9%
Germany	3.9%	22.6%
Hong Kong	12.1%	45.9%
India	12.4%	48.5%
Italy	7.2%	27.5%
Japan	2.7%	25.5%
Mexico	5.4%	28.4%
Netherlands	5.3%	20.6%
Poland	5.5%	19.7%
Russia	2.9%	20.9%
Singapore	13.7%	46.5%
South Africa	3.4%	17.7%
South Korea	20.6%	66.2%
Spain	5.6%	24.6%
Sweden	2.4%	14.0%
UK	5.5%	28.1%
US	14.1%	46.8%

Source: Datamonitor

THE US MIGHT BE AHEAD IN TERMS OF CONCEPT, BUT EUROPE AND ALSO JAPAN AND AUSTRALIA ARE WAY AHEAD OF IT IN THE USE OF THE MOBILE APP AS A MARKETING DEVICE ***Rod Witmond***

Kong's Star Ferry might instantly receive an offer which can be redeemed at a merchant located near the destination terminal.

"[It is] essentially marrying all the sophistication of analytics with actual real-time transactional behaviour and delivering an exclusive, customised offer based on that transaction," says Mr Lagutaine.

Enthusiasm for these kinds of technologies is fairly universal but, for most, they remain in a reasonably early stage of development. "We haven't announced some of what we've been doing yet but it's very critical to our strategy and we definitely believe that the long-term distribution of these offers is through a combination of mobile apps and mobile websites," says Cartera's Mr Wolf. "You need to present the right offer to the right person, through the right channel at the right time. We do think that mobile has the potential to become the dominant channel in five to 10 years."

CHICKEN AND EGG

Reaching this point of marketing nirvana, however, will not be easy. "I believe we will get there eventually, but it's hard to transition," says American Express' Ms Lambert. "We have the new technology but we are also a little shackled by legacy systems, so moving all of those pieces together will inevitably take more time than the more excitable in the community think."

She says success will rely on more than just technological development. "There is a chicken and egg story – to be able to provide what I think of as really great, personalised and customised offers, products and services, you need more and more data, and to get more data you need to be able to offer interesting, compelling and relevant services so customers are happy to continue to provide insights and data and share more of their lives."

Ensuring customers will do this relies on fostering confidence that their personal information and financial identity is in good hands, according to Ms Lambert. She says: "Customers need to get comfortable with the fact that as they share information, it will not be compromised. It's our responsibility to make sure that our services protect privacy and protect consumer information as well as providing that personalised customised service."

GETTING CONSUMERS ON SIDE

Industry stakeholders stress the importance of an opt-out versus opt-in model to receiving personalised offers. Marketing should avoid what Mr Wolf describes as the "freak-out factor" caused by overly pushy, personalised campaigns, such as seeing an online advert for a product browsed for five minutes previously on a different website. "Our strategy is to not push the boundaries, to follow best practices and to do what's right by our customers," he says.

As a result, Cartera does not actually learn anything about any specific individual or even share the anonymised and aggregated data it analyses with the merchant. Similarly, a key component of Cardlytics' system is that no personally identifiable information ever actually leaves the bank's firewall, says Mr Brooks. "If you look at the data we help banks process and analyse, we never ask for a name, we never ask for a date of birth, sex or any of those other types of things."

As for mobile delivery of offers, Citi's Mr Lagutaine says the bank's real-time offers system features enhanced data protection and authentication procedures, including delivery only through a registered mobile number and/or email address.

TREADING CAREFULLY

When it comes to customer data, customer apprehensions are not the only concern. Regulators have been keeping a close eye on the ways in which information amassed by financial services firms is used. In 2012, the US Federal Trade Commission pushed for legislation to meet what it described as "the invisibility of, and consumers' lack of control over, data brokers' collection and use of consumer information".

Certainly those firms that fail to adhere to industry best practice could find themselves in trouble, says Nick Bouch, the director of Deloitte Analytics. "Pretty much every regulation – the existing ones and ones that are coming along in the next one to three years – has a component regarding use of data from a third party or giving your data to a third party. If you don't put the controls in place now of how you use data you could be in breach of a number of regulations," he says.

The situation in Europe is likely to be stricter than in the US, says Mr Brooks, particularly when it comes to the right to be forgotten – whereby records of customers which have opted out of a loyalty scheme must be purged.

The 'everyone wins' promise of targeted mobile marketing services may then be alluring for all concerned, and in some ways inevitable. But realising its potential will require a delicate balance of technological sophistication and sensitivity toward customer sentiment. TB

THE SEARCH FOR NETWORK CONNECTIONS

Supply chain

As more and more stakeholders specialise in tools for the mobile payments space, e-commerce and mobile payments are converging, connecting the digital supply chain. So, while the mobile payments space is not an integrated web yet, headway is being made, says Daniel Barnes.

THE OWNERSHIP OR UNDERLYING OPERATING MODEL of a mobile payments provider determines the range of services that it can offer and at what cost. Balance transfers or bill payments can easily be managed by a bank operator, while payment networks such as Visa and MasterCard already hold an advantage when it comes to offering electronic payments between financial institutions (FIs).

This status quo can make it hard for other firms to offer a compelling proposition to either merchants or retail customers. Inevitably, without the existing infrastructure or regulatory compliance to offer banking services, mobile payment providers that are not owned by FIs have to get creative.

One of the key things that makes paying with a mobile wallet different to paying with a card is that the user can interact with the screen on their mobile. That can open up new potential revenue streams as firms blur the boundary between e-commerce and mobile payments.

"Often you can start shopping activity on the phone so the overall value chain is much longer than it is for a card," says Rick Oglesby, senior analyst of research firm Aite Group. "You only pull out a card at the end of the transaction, but you might pull out a phone before the transaction has even begun. That creates a longer value chain for the provider. With a lengthier value chain there is a variety of ways to make money.

"For example, Google is at the front of that value chain so if you had a product in mind that you want to buy, you often search for that item with Google. By being the resource that is used to look for things, it has an advertising opportunity that it is looking to monetise."

EARLY DAYS

Mobile payment tools can be broken down into three broad types: the mobile wallet, which enables a digital money store; the mobile point of sale (PoS); and the mobile peer-to-peer (P2P) payment system, which is often an offshoot of the other two. Depending on the type, demand can be limited, according to Mr Oglesby.

"At its most rudimentary level, this is people using their phones to purchase items at retail locations," he says. "There's a tremendous amount of investment and there's really not much traction. It's way too early to call a leader at this point. There should be money in mobile payments. There is on the merchant side of [the business], with merchants using the mobile as a PoS. But there's significant evidence that firms serving the micro-merchant space are having a tough time making a profit."

There are a few exceptions to that rule. PayPal, a leader in the online and mobile wallet and P2P space, has been owned by online auction site eBay since 2002. According to Mr Oglesby, this relationship makes sense, because without one another, the two businesses would not function effectively.

"When eBay arrived, it created the opportunity for you to sell the junk you have in your garage, but in doing that you have no intention of becoming a merchant; you are not creating a full-time business," he says. "You wouldn't go to your bank branch and sign up to get a terminal and you wouldn't qualify for it anyway. PayPal is there to enable you to get all the capabilities you need, with a few keystrokes."

This opportunity was unique and fleeting; effectively creating a new payment network that holds money, a model that has thus far not been copied as successfully.

GOING IT ALONE

For banks to compete in the P2P and wallet space they must launch systems that either link with other institutions, such as US payments network clearXchange that connects Bank of America, JPMorgan and Wells Fargo, or that compete outright, as Barclays' new Pingit service does.

UK-based Pingit facilitates P2P payments between UK bank account holders, not just Barclays' own customers. As of November 2012, it had been downloaded by 1.3 million people and had processed 800,000 transactions worth £56m ($85.4m), according to the bank. However, the bank does not have any way of directly monetising Pingit's transactions. Instead, it plans to exploit the new relationship with other banks' customers to win them over.

"Pingit isn't about making money but is about pushing the innovation agenda and leading the industry by providing alternative payment options, giving customers of all banks choice about how, when and where they move their money and make payments," says Barclays spokesperson Elizabeth Holloway.

MIND THE GAP

Pingit bypasses a challenge in P2P, namely that without common messaging infrastructure and message types, banks typically cannot interact with the services of their counterparts. Visa and MasterCard both have long-established networks that overcome this obstacle, and now there is a new player boasting this capability. Mobile payments platform provider Monitise says that it is able to bridge the gap between rival institutions.

Andrew Griffin, market intelligence director of Monitise, says: "As a bank you can't run a payments system on your own; if another bank is at the receiving end it has to be on the same system. You need to have cross-industry hubs, which is where we can come in."

He adds that there is huge interest, particularly in the US, in using mobile contact in such a way that enables the monetisation of data, but warns that banks have to do this very carefully.

"Mobile advertising has not made consumers very happy so far. Banks are thinking that if they know the customer, know what they like, they can bring them together with offers. For example, currently, loyalty cards are often left in the draw at home, but if that was held on your mobile phone it could actively tell you that you get a 10% discount as you enter a store, because of who you bank with," he says.

Making a connection: Square (top left), Pingit (top right) and Google Wallet (above) are providing consumers with an alternative to conventional payment options

Monitise is able to provide a bridge between firms because it does not handle money itself or take revenue based on transaction volumes, and so does not reduce traditional revenue streams. It provides the infrastructure for a payments system and charges clients with set-up fees and then on a per-user basis, with some additional income from loyalty schemes.

Monitise has already helped develop Visa Europe's personal payments (PP) mobile service, which RBS and NatWest went live with in March 2013. By the end of 2013, the PP service will allow payments to be sent and received across borders, allowing international P2P money transfers to be made with mobile devices.

INTEGRATED THINKING

More established non-FI players have also dipped into the wallet space. In 2011, Google launched a digital wallet and Apple was reported to have been planning for its Passbook app to have a degree of wallet functionality. When Passbook launched in September 2012, however, it was restricted to holding loyalty cards rather than banks cards

Plans to include near-field communication (NFC) functionality in Apple hardware were dropped in 2012, due to its effect on battery life. According to Zilvinas Bareisis, a senior analyst at IT research and consultancy firm Celent, since its launch, Google Wallet has changed its model, moving away from traditional payments and towards advertising.

As such, Google is moving into an area typically viewed as mobile commerce, dealing with online payments that are made via a mobile device. This may deliver a revenue stream from a merchant, says Kieran Hines, practice leader for global financial services at analyst firm Datamonitor.

"It is wrong to think of high-street stores and mobiles apps as different channels for retailers; increasingly they are using their apps in stores to enrich that shopping experience," says Mr Hines. "If you go to a store and find they haven't got the shoes you want in your size you can go online and order them, using the store's WiFi and pay using a mobile commerce transaction."

CHALLENGES FOR NEW ENTRANTS

The mobile wallet space is heavily occupied by well-established financial services firms as well as telephone and mobile network operators. The challenge for alternative new entrants is in the fact that money is predominantly and effectively kept within the financial services system. It is also true that they may discover that their business model is in competition with a loss leader.

As a consequence, these firms have sought to look for alternative revenue streams from mobile payments. Taking a return from reward schemes rather than the transaction flow allows the mobile payment service to avoid adding to the cost burden on the acquirer side, a model being used by US start-up LevelUp.

Tying advertising to actual sales is the target for Google, although it has yet to »

AN OVERVIEW OF SOME HIGH-PROFILE WALLETS

Name	Owned by	Makes money from
Barclays Pingit	Barclays Bank	It doesn't, but it may from cross-selling
Google Wallet	Google	Advertising, promotions, merchant relationships
ISIS	AT&T, T-Mobile and Verizon Wireless	Card issuers
LevelUp	Boston-based start-up	Takes 35% of loyalty/acquisition programmes
O2 Wallet	O2 mobile network operator	Merchants and limited user fees
PayPal	eBay	Fees for payment receivers
PayPass/MasterPass	Mastercard	Fees for third-party wallet use/merchants
Quick Tap Wallet	Orange mobile network operator/Barclaycard	Merchants
Serve	American Express	Merchants
Square Wallet	Square	Merchants
V.me by Visa	Visa	Merchants

Source: Datamonitor

identify a solid model. In 2011, the company's CEO, Eric Schmidt, gave a speech at the Cannes Lions Advertising Festival in which he described NFC payments as being the route to a "trillion-dollar opportunity" for mobile advertising. However, in the same speech, he had also predicted the widespread adoption of NFC payments in 2012.

Not only did that adoption not take place, by the end of 2012, PayPal president David Marcus wrote that the NFC payments debate would "slowly die in 2013". He argued that tapping a phone on a terminal was no easier than swiping a credit card and that it was not actually solving a real consumer problem, nor was it providing additional value to encourage a change in payments behaviour.

MONEY MATTERS

Start-up firms are either trying to encroach on the margins of existing payment systems or stealing a lead where those schemes have not yet ventured, but typically without the resources of an FI that allow a speculative loss-leading exercise.

Mr Bareisis says that mobile transactions are still, largely, card transactions as payments are tied to a card account. So, understandably, Visa and MasterCard want to make sure they stay relevant. "There are a whole bunch of players that want to challenge them. PayPal is one. Some of the emerging wallet [providers], such as Square in the US and SumUp in Europe, are trying to come up with a payment scheme," he says.

Square is best known for its PoS device, primarily used in the US, which allows merchants to accept card payments with a mobile device. As with PayPal, Square's service allows merchants to receive payments without having to go through the process of becoming a merchant via a bank. This part of the business does not disrupt the status quo of payments, as the payments are still made through cards issued by merchant acquirers.

Payment service providers that allow mobile devices to be used to make payments, rather than as the receiver, are targeting the consumer rather than the merchant and, therefore, must source an alternative revenue stream to merchant acquirer fees.

The willingness of consumers to make payments depends on the market; for instance, in the UK direct debit arrangements make bill payments relatively straightforward and free, whereas in the US a bill payments aggregator is often used, which incurs a small fee.

BEYOND POS

Square has gone beyond PoS and has begun offering a digital wallet, which provides member merchants with the user's picture and name. The scheme relies on the merchant recognising the user and authorising the payment. Although a card system is present in the background to provide the credit line for the payment, no actual card technology is used. The scheme is operating in some branches of coffee house Starbucks. It also powers the company's loyalty card, which allows users to hold deposits and make in-store payments.

The Isis wallet, which launched in October 2012, is a PIN-protected system that allows payments to be authorised with a mobile device. It is operated by AT&T, T-Mobile and Verizon Wireless in partnership with Visa, MasterCard, Discover and American Express. It has been launched in two US cities: Salt Lake City and Austin.

Mr Bareisis says that expansion beyond local areas in the US can be a problem, due to the lack of comprehensive secure payments systems, such as chip and PIN. This issue also limits cross-border expansion. "I expect schemes such as Square to sign up merchants in geographically local areas in limited regions; I don't expect them to expand in a global way in the near future," says Mr Bareisis.

STANDING OUT FROM THE CROWD

PoS mobile payment devices are a good entry point into the business. As with PayPal, they facilitate transactions for individuals or firms that have no desire to set up a formal payments structure. They typically function in one of two ways: with the mobile as the PoS, which allows a merchant to swipe a card though a mobile device such as Square; and there is mobile at the PoS, which enables a consumer to use their mobile device to pay.

Intuit Pay offers mobile-as-PoS systems, with a free app and portable chip and PIN card reader to allow payments to be made securely face to face, via a website or over the phone. Already operational in the US and Canada, it launched in the UK in March 2013, ahead of a similar product from PayPal, called Here, which is expected to launch in April 2013. US rival Square has not, as yet, confirmed plans to launch in Europe.

"Where we try to differentiate ourselves from the alternatives on the market is in the underwriting process," says Terry Hicks, the vice-president of products for Intuit's global business division.

"We use a process that allows us to be fully compliant with Visa and MasterCard rules but that allows us to identify the merchant and collect their compliance data automatically by asking for a few pieces of information and within 30 seconds they get a response saying 'approved', 'declined' or 'more information needed'. It's an easy application with instant approval for most merchants so they can start accepting payments within minutes of being approved through a mail-order transaction. The card reader is ordered in that process and is delivered two to three days later."

Intuit also offers a range of personal finance software, allowing it to provide the small business owner with a relatively well-rounded set of products. Mr Hicks says it is primarily marketing Intuit to these firms, typically targeting those without retail premises.

To offer such services, Intuit operates as an agent of its subsidiary GlobalPay UK, which functions as the acquirer under a joint venture with HSBC and is responsible for the financial transactions. Although new to the UK, the firm is still seeing growth in the US where it launched its service in 2009. TB

THE MOBILE WORLD IS OPEN

It starts with an impulse. A person is walking through a mall or presenting to a client, when suddenly they feel a twinge—of need, of inspiration, of...anything. And, just like that, they pick up their smartphone or tablet or reader. This simple gesture, repeated billions of times a day, is the mobile world at work. And it represents one of the greatest challenges—and the largest opportunities—facing companies today.

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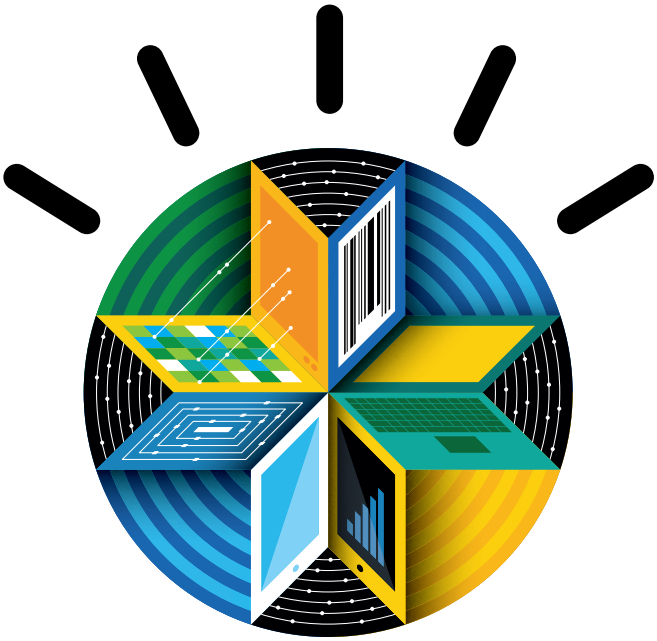

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With devices in hand, customers expect not only to make a purchase or check in online, but also to pay their mortgage, fill a prescription and perform a range of other confidential or personal transactions. Which means the onus is on every business to become a *mobile* business—because if they haven't, someone who has is never more than a tap or swipe away.

Today, a new breed of mobile business leaders—marketers, technologists, supply chain managers and others—are using a new class of integrated solutions to generate more value from mobile customers.

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