THE WAY WE ••• BANK NOW ••••

World of Change

A DAME DI LIUMANA



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The Way We Bank Now: World of change

Summer 2015



About the BBA

The BBA is the leading trade association for the UK banking sector with 200 member banks headquartered in over 50 countries with operations in 180 jurisdictions worldwide. Eighty per cent of global systemically important banks are members of the BBA. As the representative of the world's largest international banking cluster, the BBA is the voice of UK banking.

We have the largest and most comprehensive policy resources for banks in the UK and represent our members domestically, in Europe and on the global stage. Our network also includes over 80 of the world's leading financial and professional services organisations. Our members manage UK banking assets of more than £7 trillion, employ more than 400,000 individuals nationally and contribute almost £80 billion to UK economic output each year.

Our largest retail banks finance more than 8 million household mortgages and provide almost 600,000 loans to small and medium-sized businesses in the UK.

For more information on becoming a member and working with the BBA, visit: www.bba.org.uk/membership or contact: Richard Adler, Relationship Director, richard.adler@bba.org.uk

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Foreword

World of Change

Anthony Browne Chief Executive of the BBA



Can the way we spend, move and manage our money ever have changed so much and so quickly? This transformation has been astonishing and this exciting journey is still only just beginning.

Our first *The Way We Bank Now* report in the summer of 2014 showed that mobile banking transactions had doubled in a single year, with more than 14 million of us having downloaded apps allowing us to bank on the move. It also highlighted the rapid rise of contactless cards and how millions of us had signed up to receive text alerts warning us if we were close to straying into the red.

The report you hold in your hands – or, more likely in this age, you are reading on your screen – shows that there has been no let-up in this revolution. In the last 12 months we have seen the advent of payment by Twitter, the launch of wearable technology such as the Apple Watch and the growth of Paym – a platform that allows us to pay friends and family with just a few taps on our smartphone's screen.

This is not just a story about state-of-the-art new devices. Banks are also enhancing the products and services customers have used for centuries, with updates for future generations.

Just look at the humble cheque – soon to celebrate its 300-year anniversary. A recent change in the law should now allow many of us to be able to pay a cheque in by just snapping it with our mobile phone and effectively texting the image to our bank.

Similarly, sophisticated technology is being plumbed into bank branches to make life easier for customers. This could mean high-tech ATMs

that allow businesses to deposit cash or cheques, iPads that allow you to open an account in just three minutes or video conferencing services that can get customers in front of mortgage specialists and other experts faster than ever before.

Look around the world and you will find that Britain is not alone. That's why we've broadened our horizons in this year's report to look beyond our shores, showcasing many of the best and more interesting innovations in retail banking elsewhere.

Our final section looks ahead to what new technologies customers can expect in the years ahead. To my mind, this is perhaps the most exciting part of this report – exploring how sophisticated use of data, biometric security features and wearable technology could combine to shape the next revolution in retail banking.

These innovations are transforming the mobile phone into a financial assistant in your pocket, using our bank's knowledge of how we live our lives to offer us greater insight into how we're spending our money and enabling us to save money on everything from the cost of our supermarket shop to our next meal out or holiday.

These will be services that we would opt for and not all of us will want them. But many of us in this country and abroad are already showing an enthusiasm for these kinds of tips and offers. Done in the right way, this could be a great way for banks to rebuild the trust and confidence customers have in our banks.

I am very grateful to the many banking experts from our members who spared time to be interviewed for this report and to our sponsor EY, which has also contributed a fascinating chapter on 'Making innovation happen by focusing on the customer'.

The way we bank is changing – and for the better. All those millions of us who have signed up for mobile banking have done it because we find it easy, fast and convenient.

However, that does not mean banks can be complacent that all innovation of this kind serves everyone well. That's why banks must strive to make sure that this is not change for change's sake, but new technologies that genuinely improve the lives of those who matter most – the customers.

Foreword

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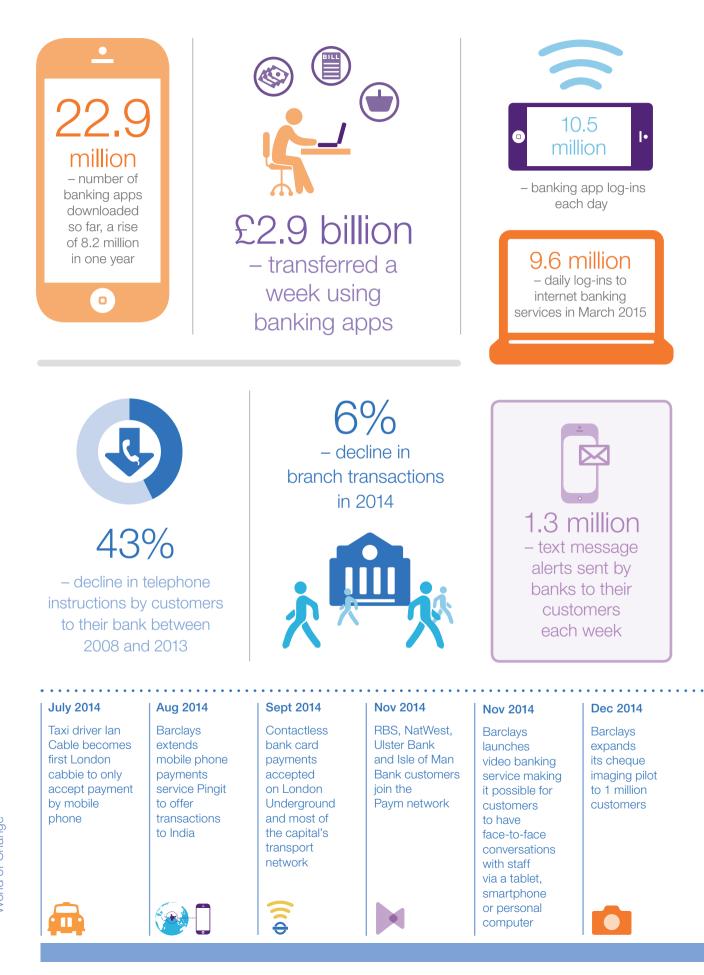
EY and Seren¹ are delighted to join the BBA in continuing to showcase the significance of digital technology in UK banking through the second edition of *'The Way We Bank Now'*.

Our research highlights that:

- Consumer behaviour and expectations have been irreversibly shaped by digitally native companies – the smartest banks are addressing this expectations gap, but the pace needs to accelerate.
- Delivering winning customer experience has become the single most critical differentiator available to banks in today's commoditised market.
 Providing an exceptional customer experience should be the highest priority for retail and commercial banks in the UK.
- As it is becoming increasingly easier for customers to switch banks, we see the potential for a 'winner takes all' effect, with some banks taking significant market share from others.
- Only those who become truly customer-centric will be able to deliver an exceptional experience that wins and retains customers in the face of tough competition from both new and traditional players.
- Whilst Service Design may be a relatively new concept for the banking industry, based on its impact in other industries, the potential value cannot be ignored. Our research has shown that non-financial services companies in the US taking a Service Design approach outperformed the S&P over a 10-year period.

¹ EY and Seren collaborate to serve clients on a broad range of customer experience topics, including Service Design and customer experience transformation. They bring to bear their complementary capabilities: customer research, Service Design, business architecture, IT architecture, regulatory compliance, people and culture transformation. We thank the BBA for allowing us to contribute to this timely and topical report, which looks outwards to other markets and highlights how banks outside the UK have progressed in their innovation journey, providing lessons and insights for UK banks. It also shows how UK banks have progressed since the last report and the advances made by the UK FinTech sector.

Industry-wide



Institution specific



33% – the percentage of Barclays personal loan applications that are now approved without the customer having to find time to visit a branch



65% – the proportion of all online banking by Halifax now taking place on mobile phones



log-ins to the
Tesco Bank Mobile
Banking App
each week



£400 million – to be spent on RBS and NatWest branches refurbishments this year, with 16 a week expected at the programme's peak



3,200 – the number of people who have used the Nationwide Now video service so far



 of payments and transfers by HSBC customers are now done in a branch

Feb 2015

Barclays launches Twitter payments through Pingit Department for Transport announces plans to introduce contactless payments to buses, trains and other modes of transport across the country

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March 2015

March 2015

Launch of the midata initiative allows customers greater clarity than ever before to judge which is the best bank account for them

April 2015

Apple Watch launches in the United States

| April 2015

Lloyds Banking Group unveils video and infographicenabled terms and conditions for its internet banking service

May 2015

The Payments Council publishes figures showing cash payments have been overtaken by electronic and other types of transactions for the first time

BBA World of Change

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PART ONE

The Way We Bank Now

"We're going to need to think more like technology companies and maybe a little less like banks... Are the leaders committed? Are they digitally fluent? Have they digitally reimagined their business?

Richard Fairbank, chief executive of Capital One

"The steady, organic growth in Handelsbanken's branch network illustrates that British customers value having face-to-face access to experienced bankers who understand them and the local market, and who can make all the big decisions regarding their banking requirements. These days, customers also expect the options to bank online, via mobile app or over the phone whenever it suits them to do so, especially for simple, familiar transactions. We see these as digital meeting places and design them to complement and reinforce the customer's relationship with their local branch team, ultimately helping us deliver first class customer service."

Andy Copsey, chief operating officer, Handelsbanken

The Way We Bank Now

Banking on the move

The smartphone is radically changing the way millions of us live our lives in many ways – and the way we bank is no different.

Since they emerged four years ago, banking apps allowing us to check our balance, make payments and perform a range of other functions on the go have been downloaded nearly 23 million times.

In the past year alone that figure has grown by 8 million – a download rate of more than 930 an hour for 12 months.

Halifax saw the number of log-ins on its mobile banking app rise to almost 40 million during March of this year – nearly twice as many as in the same month a year before. Many of us seem to love the convenience of being able to check our balance with a quick log-in that takes a few seconds, wherever we are and whenever we like. Tesco Bank says its customers log-in some 450,000 times week.

Apps are now eclipsing internet banking for a growing number of customers. Nearly two-thirds – 65% – of all online banking by Halifax customers is now conducted by smartphone, significantly more than personal computers (26%) or tablet computer (9%).

George Charalambous, head of mobile banking at HSBC, sees clear differences between what customers want from a mobile app compared with internet banking. "On our personal internet banking service you can do pretty much everything you can do with a member of staff in branch," says Charalambous. "But I don't want to put all of those services onto an app because that will slow it down.

"Mobile banking needs to be neat, agile and fast. The skill is to pick the right transactions."

It's not hard to see why banking apps have become so popular. Transfers that before you would have to make by visiting a branch or telephoning a call centre can now be done in the palm of your hand.

Take-up of mobile banking services is increasing – and so too is their sophistication. Barclays' app now clearly displays the unsecured credit limits for many of its customers. This is a level of transparency a world away from how personal credit decisions were made in the past.

"In the old days the customer would have had to come into a branch and undergo a detailed application process, even though their credit rating had probably already been decided elsewhere in the bank," says Matt Hammerstein, head of client and customer experience at Barclays.

"A tile on our app now proactively makes customers aware of how much they can borrow, leaving them to decide whether this is the right time in their life to take on some more credit... without even entering a branch."

This faster, more transparent loan application process ensures that a customer can have funds deposited into their account in just a few minutes and by merely making a few clicks.

There are many instances in which this speed and control of our finances isn't just useful – it can save us money.

Imagine you have been looking at cars in a local dealer when you stumble across a vehicle ideal for your needs. You don't have the funds to buy the vehicle outright and before long you are looking at the terms of a finance package offered by the car's manufacturer as you haven't had a chance to go into a nearby bank branch. Frankly, it's not a great deal.

Now, many of us can apply to borrow the money from our bank through our mobile app and receive the funds into our account without leaving the car dealer. Because the bank has a clearer understanding of your risk profile you are much more likely to be able to borrow these funds at a lower interest rate.

Similarly, if you are a Halifax customer, you can use its online car finance platform to prearrange secured financing for a car you plan to buy and have the money transferred to a dealership once a sale is agreed.

These faster credit application processes are proving popular. A third of all Barclays personal loan applications are now approved without the customer needing to visit a branch.

HSBC has gradually added services to its app, including the ability to apply for credit or to manage their ISA. There are plans to allow customers to extend their overdraft from a mobile phone.

"Say for example you were at a retailer at the weekend before payday and you saw a deal on an appliance you need," Charalambous explains.

"Wouldn't it be much better if you could just open your app and extend your overdraft there and then, without having to make a call or step into a branch? That's exactly the sort of fast, helpful innovation we're looking at."

Paym

Another fast, helpful form of innovation many of us have already signed up for since last year's launch is the new system which allows us to make payments to contacts in our mobile phone address book.

Known as Paym, more than 1 million bank customers had registered within 100 days of the launch. After nine months, more than 2 million of us had signed up and $\pounds 26$ million had been transferred.

According to research by the Payments Council, a third of these payments are used to pay someone back who has bought us our lunch. Other popular occasions include reimbursing someone for petrol money, contributing to a group present or paying a friend back for a cinema or concert ticket.

Customers say the key advantages with the service are not being obliged to give out your bank details to someone or take down those of another's.

The scheme is also proving a hit with some business customers. Michelle Kent, Santander's UK digital director, recently converted her window cleaner to the system. "He's one of our business banking customers and since I mentioned Paym, he's registered and says it has made his life much easier. Now, he gets a stream of texts telling him that he's been paid by customers, and as he banks with us the alert also tells him who has paid – he doesn't have to log-in to find out.

"It's a fantastic service for personal customers too and in time I think Paym will become an enormously valuable platform for small businesses."

Internet and telephone banking

As millions of us harness our mobile phones to bank, we are dialling our banks' call centres less than in previous years.

According to BBA statistics, the number of banking transactions conducted over the phone plummeted by 43% between 2008 and 2013. Many customers are choosing not to even register for phone banking anymore – with a 23% fall in those signed up for these services over the same period.

Meanwhile, figures obtained for this report suggest that the fall in phone banking has accelerated since the take-up of apps. One major banking brand has seen a 16% decline in call centre traffic over the two years leading up to March 2015. Another bank had seen a fall of 12% over the same period.

Many of the tasks we once contacted call centres to do can now be done on a smartphone. In 2009 we called our banks nearly 50 million times merely to transfer money between our accounts. By the end of 2013 that figure had fallen to 16.7 million.

It will be interesting to see what happens with internet banking in the years ahead. In many homes around the country personal computers are starting to gather dust as we prefer to use tablets and smartphones instead.

A few of the banks that provided statistics for this report recorded a fall in internet banking – alongside a surge in mobile banking. Nevertheless, the overall use of internet banking is continuing to grow. During March of this year there were on average 9.6 million log-ins a day – a 10% rise on the same period of 2014.

Contactless cards

The bank card may not automatically spring to mind as quickly as the washing machine or the lawnmower when one thinks of great time-saving innovations.

But every day, up and down the country queues in shops are being cut by the speed of contactless payments, the technology which allows us to just tap a card reader rather than punch in a four-digit PIN or scribble our signature on a till receipt.

Tap payments on faster machines take around a second. Conventional Chip and PIN transactions and cash can take significantly longer. This innovation saves time for retailers as well as customers. The supermarket Tesco says that contactless payments are six seconds faster than Chip and PIN payments.

By January of this year 40 million contactless transactions were being made a month – a three-fold increase on a year before. Total spending using this technology grew to $\pounds 2.3$ billion in 2014 – up from $\pounds 653$ million the year before.

A large part of this swift uptake can be explained by Transport for London's adoption of this technology. In September last year passengers travelling by tube, bus and many overland trains in the capital became able to pay simply by tapping their bank card when they began and ended their journeys. No more queuing up at ticket offices. No need to remember topping up their Oyster card online.

These payments are not just faster – they are also safer. UK Cards says that in 2014 there was £153,000 of fraud on all contactless cards. This represents just 0.007% of all spending on these cards. Fraud on other cards is ten times larger – accounting for 0.075% of all payments by those with Chip and PIN security.

Describing a type of payment where you do not have to use a passcode as safer than one where you do may seem counterintuitive, but there are a number of reasons why this may be the case.

First of all, the £20 limit for a contactless transaction is hardly a bounty for a fraudster. If a customer spends between £40 and £50 in this way over a short time period, they will be prompted to enter their PIN. So, substantial amounts of fraud are unlikely. Finally, many such terminals are located in places with CCTV footage and therefore fraudsters may see the risks of being caught far outweigh the rewards.

The contactless rollout continues apace. The Department for Transport and UK Cards are working together to introduce this technology across all of Britain's buses, trains and other modes of public transport. Manchester may be one of the next parts of the country to harness tap payments for its transport infrastructure.

And from September the cap on contactless transactions will rise from $\pounds 20$ to $\pounds 30$.



UK Cards says that in 2014 there was £153,000 of fraud on all contactless cards. This represents just 0.007% of all spending on these cards.

The changing branch

The numbers could not be clearer. Millions of us are using branches much less frequently than ever before.

Transactions in the high street outlets of our banks have fallen by 6% over the past year. Some banks have seen far greater declines. One major bank saw a 40% fall in branch transactions between 2009 and 2014 – with an 11% fall in the past year alone.

A range of innovations – including ATMs and cashback, as well as a range of other digital services – have ended the need for many of us to visit a branch regularly. This is saving vast amounts of time for millions of customers.

While there are those of us who will be very interested in the new digital-only banks that do not have a high street presence, there will be many others who will always want the security of knowing a branch is there – be it for talking to someone about a mortgage, assessing their financial options or resolving a complaint.

So, while most banks have been reducing the size of their high street presence since the 1980s, the death of the bank branch has been much overstated. More than a quarter of the UK's bank branches have been refurbished in the past three years – clearly demonstrating the commitment to bricks and mortar.

RBS and NatWest are a good example of this. During 2015, £420 million will be spent overhauling around 400 RBS and NatWest branches. At its peak, this programme will see 16 of these premises refurbished a week.

These renovations are not simply about a new lick of paint. Bringing new technology into branches frees up staff time to spend more time with customers. For instance, RBS and NatWest estimate that new "self-service" machines – be they iPads or sophisticated ATMs, that allow customers to pay in cheques and coins – free up 25% of staff time.

Andy Copsey, the chief operating officer of Handelsbanken, emphasises how digital technology should be integrated into the branch – not a replacement to it.

"The steady, organic growth in Handelsbanken's branch network illustrates that British customers value having face-to-face access to experienced bankers who understand them and the local market, and who can make all the big decisions regarding their banking requirements," he says.

"These days, customers also expect the options to bank online, via mobile app or over the phone whenever it suits them to do so, especially for simple, familiar transactions. We see these as digital meeting places and design them to complement and reinforce the customer's relationship with their local branch team, ultimately helping us deliver first class customer service."

Graeme Hughes, group distribution director at Nationwide, agrees that technology can reinforce the branch's future – not hasten its death.

"While traditional over the counter transactions are declining, there is still evidence that people are continuing to use branches and we see branches continuing to play an important role in how people manage their money," Hughes says. "We believe in providing customers with choice, by enabling them to bank with us how they choose, whether it is digitally or in branch. We actually see branches as representing a real opportunity to better connect with our members, using new and traditional means, on a more personal level. It's about creating a more valuable customer experience in branch without losing the human touch."

Although the number of traditional bank branches has been in decline since the 1980s, the number of places offering bank services has actually increased – and dramatically. This is because of the deals more than 20 major UK banks have signed with the Post Office to offer counter services. There are around 11,500 post office branches.

Video conferencing

Anyone who doubts that technology is transforming the bank branch all over the UK should perhaps take a flight to the Orkney Islands.

In days gone by, Nationwide customers on these Scottish islands who wanted to take out a mortgage would have to fly to Aberdeen or Inverness if they wanted a face-to-face conversation with a mortgage expert. A two-week wait for an appointment was not uncommon.

However, the Orkneys' Kirkwall branch is one of the building society's 160 high street outlets that has introduced Nationwide Now, a high-definition video conferencing service which has already been used by thousands of customers to complete mortgages applications in one sitting and a range of other processes (see box overleaf).

The service is based in a separate room, away from tills. However, a member of the branch staff is on hand to help if necessary.

Graham Beale, Nationwide's chief executive, says that as many as 400 branches will be fitted out with this technology by the end of the year. "Nationwide Now provides more immediate service and access in our smaller branches where availability of our consultants can be limited," says Beale. "It also creates extra capacity in larger urban locations where demand is at its greatest."

Nationwide Now is another striking example of how state-of-theart banking technology can work hand-in-hand with – and improve – traditional banking services.

"This service is reducing waiting times to see a consultant from weeks in some areas to within days," Beale adds. "Ninety-four per cent of customers say they are either very or extremely satisfied with the service."

Barclays, which was the first bank to launch video banking, has harnessed video technology to allow customers to talk to staff faceto-face remotely on their smartphone, tablet or personal computer wherever Wi-Fi is available.

Lloyds Banking Group is also looking at similar services and in December last year Coutts, part of RBS, began piloting a video conferencing service which allows customers to patch in their "other half" or professional advisers.

There are good grounds to suspect this is technology that will



State-of-the-art banking technology can work hand-in-hand with – and improve – traditional banking services.

> BBA World of Change

appeal to older customers. "There are a significant number of older people who use Skype to keep in touch with their relatives," says Michelle Kent, Santander's UK digital director. "It's perfectly possible that we will have many customers of a similar age that will be very interested in using video services.

"It's wholly wrong to take a demographic bias when thinking about whether a customer wants to take advantage of internet banking or other similar services.

"I tell branch staff that just because a 65-year-old walks into your branch you must not assume they are uninterested in digital banking. Always have the conversation – they may be waiting for a little help."

Sara and David White from Skegness recently used the Nationwide Now service to pay off one personal loan and take out another for a home improvement.

When Sara, 48, popped into her local branch she was told that the member of staff who normally handled such applications was unavailable, but that she could complete the process straightaway if she would like to use the building society's video conferencing service.

By her own admission, Sara is no technological whizz. "I've got an iPhone, but I wouldn't say I was very good with technology," says Sara, who works on the catering staff of a secondary school. "I have to say though that it was a wonderful experience."

Mrs White was soon speaking with a Nationwide lending expert based in Scotland, who took her through the processes involved with both the old and the new loan in around an hour. Her husband had a brief follow-up conversation using the same service soon after and was also impressed.

Despite being sat in another country, the Nationwide member of staff was able to print all the necessary paperwork to a printer in the very same room as Sara.

"I was amazed at how clear the connection was," says Sara, who has used Skype to stay in touch with relatives overseas. "Now that can judder a bit – but this was very clear. It really felt like the lady helping us was in the room too."

"There were no negatives – I'd really recommend it to anyone. Can't technology be wonderful?"

Welcome to wearables

There are those in the banking industry who see the advent of smartwatches and wristbands as the next great revolution for retail banking.

Nationwide and Barclaycard have already launched wristbands that let customers make payments.

Users of Nationwide's N.Band and Barclaycard's bPay, the latter which is currently being piloted, load money from their bank card onto the wristband online and can then use it to buy goods or services at any of the 300,000 places in the UK that accepts contactless payments. Both providers allow customers of other banks to use these products.

These bracelets are harder to lose than a plastic bank card. They are also less cumbersome than a handbag, bulky wallet or pocket full of change. They are already proving popular with sports enthusiasts and festival goers.

Daryl Wilkinson, head of group innovation at Nationwide, says: "People actually really like the rubber band because they feel they are not at risk of damaging anything of high value or placing themselves in a position where they have to take it off.

"Ninety-five per cent of the people we piloted the N.Band with said they preferred the process of paying with it. It talks to something about human nature.

"When we pass through the underground in particular a lot of us have that anxiety that we will be the person fumbling for our Oyster card or for their ticket and hold up the 20 people rushing for the turnstiles. Whereas if you've got a band on your wrist you just touch it and you're through. It removes some of that anxiety of day-to-day life."

Smartwatches allow us to do much more than these wristbands. Nationwide members can now check their current balance, make payments, transfer money between accounts and perform a host of other functions on an app designed for Android smartwatches.

There are sceptics of wearable technology, of course. Few have judged Google's Glass, the internet giant's first foray into wearables, a triumph. In January of this year Google announced that it would cease producing its prototype.

However, there are expectations that the Apple Watch may provide a breakthrough for this technology in a similar way to how the iPad turned the tablet computer into a must-have product for many people.

In late April, Barclays announced it would offer one of the first apps available through the Apple Watch, allowing customers to securely check the balance of their current account on the go.

Cheque imaging technology

One of the most striking innovations in retail banking over the past year concerns one of its oldest fixtures.

It was in 1717 that the Bank of England began producing pre-printed cheques. Just a few years ago there was even talk of retiring this form of payment.

However, in the last year Barclays customers have been able to try out technology already in use in the United States, China, India, France and some other European countries that should secure the future of the cheque for many years to come.

Cheque imaging allows us to take a picture of a cheque on a smartphone and then email it to our bank, who will then pay it into our account. No longer do we have to find time to take a cheque into a branch or Post Office. But this is innovation that has more advantages than simply saving the time taken to pay it in.

The real advantage for customers is that it speeds up the cheque clearing process from six days to just two. Harnessing this technology also reduces the risk of a cheque going astray in the post, being ruined by a spilt drink or disappearing under a mountain of paperwork.

Conventional cheques can also fall victim to fraudsters. The Payments

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Council says there were fraudulent transactions worth \pounds 35.1 million during 2012 associated with this form of payment. Meanwhile, Barclays has estimated that up to \pounds 300 million cheques are never paid in each year.

"From a customer's point of view there is a huge amount of inconvenience in the way cheques get processed," Matt Hammerstein, head of client and customer experience at Barclays says. "There is no reason why that needs to be the case."

One of the barriers standing in the way of this technology has been UK law. A change, made by Parliament shortly before the recent General Election, allowed electronic images to be accepted as a form of payment between different banks.

Under a pilot launched last summer, many Barclays customers with iPhones wanting to pay in cheques from other Barclays customers began to use this technology.

While there are many of us whose chequebooks may be gathering dust in a drawer, this mode of payment remains very popular, especially with small businesses, charities and older customers.

According to the Payments Council, nearly £840 billion of cheques were processed in 2012. They accounted for 10% of all payments to individuals in that year.

HM Revenue and Customs still relies on this method of payment to send tax rebates to millions of customers each year and around two thirds of all donations made to charities are by cheque.

Although customers will still be able to pay their cheques in at their branch, a Post Office or via the post, this is an innovation that could be keenly valued by many people and organisations who have yet to harness many other types of consumer-friendly banking technology.

Social media

In March Barclays became the first bank to allow customers using the bank's Pingit mobile phone app to send payments to other people and businesses by simply using their Twitter handle.

Convenient for those sending money, it is also useful for recipients as it means they don't have to give out their bank account number and sort code to receive money.

Even before social media became another way we can pay, banks were using Facebook and other social networking platforms as another way to talk to customers.

RBS and NatWest use their Facebook walls to promote products, adding that social media can be a way to "rescue" customers, who would not use traditional ways to complain and so were it not for their posts on social media the bank would be unaware that they were dissatisfied.

Volumes of correspondence between banks and their customers using these services remain modest compared with phone, email and branch visits. Larger banks typically respond to around 1,000 Facebook and Twitter messages a week, but the numbers are growing.

In March this year Lloyds Banking Group radically redesigned the terms and conditions of its internet banking services, bringing to life a vital, but long technical document with a series of videos and infographics.

"Terms and conditions are ripe for improvement in the digital world," says Marc Lien, director of innovation and digital development at Lloyds.

Too often these important documents aren't well read. So the bank's innovation labs set about testing formats and techniques that would make it easier for this information to be digested and remembered.

"We know customers are now much more likely to engage with the new version. This has allowed us to improve our customers' understanding of our products and of personal finance more widely."

midata

It's now even easier to shop around for the best deal from your bank or building society, thanks to the launch of a new current account service called midata.

midata allows bank customers to download all of their transaction data for the previous 12 months in a single file. They can then upload the file to price comparison websites and quickly compare banks in order to make sure that they're getting the best possible value from their personal current account.

The initiative was launched by Government, alongside many of the major high street banks and UK consumer groups. The aim is to make banking as transparent as possible, and to ensure that bank account holders are getting the best deal based on their transactions, charges and interest payments.

If the customer decides to switch their account for a better offer, then the Current Account Switch Service is on hand to ensure that this can be done quickly and easily within seven working days, with confidence that automatic payments will be redirected.

The banking industry hopes that midata will bolster competition in the market yet further, whilst helping customers save money and giving people better access to and control over the electronic data that companies hold about them than ever before.

Conclusion: A closer relationship

It may seem counterintuitive, but technology has in fact allowed us to have a closer relationship with our bank than ever before. The average user of Barclays logs into their app 28 times a month, not far off once a day. Cast your mind back to the days before the digital age and it's very hard to envisage too many people in our country who would visit their bank branch or phone their bank once a day.

"What we've seen is the preference many people have for wanting reliable updates on their financial position whenever and wherever they choose," Hammerstein says.

Similarly, millions of bank customers have signed up for and grown accustomed to receiving text messages on their phone giving a notice if they are about to slip into the red or breach the terms of their overdraft. These alerts remind many of us to transfer funds into the account or speak to our bank, thereby avoiding a fee.

Reliability of new technology is crucial – not least because technology has recently made it easier to switch a bank account now than ever before. The Current Account Switch Service launched in September 2013 has removed the need for customers to rearrange all those direct



Technology has in fact allowed us to have a closer relationship with our bank than ever before.

World of Change

debits and other regular payments in and out of our current accounts. That administrative hurdle could have discouraged many of us from banking elsewhere.

According to the Payments Council, which operates the service, there were 1.1 million account switches in the year leading up to the end of March 2015 – a 7% rise on the previous 12 months. All but a small percentage of these switches take place inside seven days.

Another new innovation will also make it easier for customers to find out if they may be better off by moving their account. Launched in March, midata will allow customers from a growing number of banks to download a year's worth of account data – including interest accrued, any overdraft charges and costs associated with travelling overseas.

This data can then be uploaded to a price comparison website. GoCompare is currently the first and only company offering this service, but others are expected to follow. Once uploaded the customer sees a ranking of which of the hundreds of current accounts on the market is best value for them.

However, mobile banking, cheque imaging and smartwatches are just the latest steps in the way we spend, move and manage our money. There is much more to come.

PART TWO

A World of Change

"People wake up in the morning. They check Facebook while they get dressed, check the weather and read emails over breakfast. The customer may Skype his girlfriend at work, upload a picture of his cat to Instagram at lunch time and order dinner via mobile on the way home. If we don't think like this, how can we catch our customer?"

Deniz Guven, head of digital channels at Garanti Bank, Turkey's second largest bank

"The future of retail banking is a delightful mobile app where actionable insights, as well as high-quality, relevant offers are integrated with everyday banking."

Georg Ludviksson, chief executive of the Icelandic IT specialist Meniga

A World of Change

Introduction

Britain is certainly not alone. Many millions of people across the world are also harnessing mobile phones, tablets and smartwatches to manage their finances.

But some nations have pressed ahead with certain types of technology further than others.

Some countries have near paperless bank branches, other nations are not far from becoming cashless societies. There are places where using facial recognition technology to access your banking app has become routine.

Many customers in other countries have also embraced highly sophisticated analytical tools that allow you to set financial goals or have carefully chosen, money-saving offers sent directly to your mobile phone just as you are passing one of your favourite shops or restaurants.

There is even augmented reality, which allows you to find out more about a house you might buy or navigate your way to the nearest cash machine by simply holding up the camera on your smartphone.

This section explores some of the most exciting, pioneering technology which customers have embraced in other countries. These innovations from overseas provide an intriguing glimpse at the way millions of us might bank in the future. Retail banking is not just changing in Britain. We are seeing a world of change.

Australia: Albert – A revolutionary payments device giving businesses real insight

In March Commonwealth Bank Australia unveiled Albert, a tablet that is transforming the way people shop and eat out Down Under while simultaneously making life much easier for its business customers.

The seven-inch Android device is Wi-Fi and 3G-enabled, allowing staff to roam shop floors and restaurants, accept contactless and Chip and PIN payments. Receipts can be printed or emailed.

Businesses using Albert have reported that it helps cut queues and serve their customers more quickly. Diners can easily split their bill up to ten ways, choosing to pay by cash or a range of different bank or credit cards.

However, the device is much more than a payments device. Businesses can download a range of apps for Albert making it easy to analyse sales data, pinpoint the busiest periods and look at customers' spending habits.

Gary Roach, Commonwealth Bank Australia's managing director of payments and cash management, says Albert will allow businesses to "have at their fingertips an enormous wealth of data".

"You have to be across that data and develop insights so you can improve your transactions for your customers," Roach says.

More than 800 software developers have already registered to build apps for Albert. However, savvier businesses are able to develop their own tailor-made app for their business using services offered by the bank.

The Winery, a restaurant in Sydney's Surry Hills district, recently introduced Albert.

Luke Rosie, The Winery's operations manager, says his staff found adopting the new device easy. They have even been left better off by the innovation.

"With Albert it prompts for a tip screen," Rosie explains. "It reminds customers that the level of service that we give might deserve a tip. I've definitely noticed there's an increase in tips there from the Albert terminals as opposed to the other terminals."

Turkey: iGaranti – A financial adviser inside your phone

With almost half of its population yet to reach their 30th birthday, Turkey was always likely to be a place where mobile banking was a hit.

More than 90% of the residents have a mobile phone and an astonishing 94% of its country's population is signed up to Facebook.

By 2013, 49% of Turks with internet access were using mobile banking. At that time, this compared with 35% of Brits and around 44% for the Spanish and the Dutch.

This was the year when Turkey's Garanti Bank launched a series of banking apps regarded by some experts as the world's most innovative.

iGaranti led the way in allowing customers to make payments to Facebook friends and contacts in their phone's address book.

iGaranti was one of the first apps to allow users to add all their debit and credit cards to their iGaranti app, allowing customers to use their smartphone as a mobile wallet in stores and when buying goods and services online.

The app allows customers to create a monthly budget – or "Cash Tank" – based on previous spending habits. Users can then choose to receive notifications based on their current spending.

For instance, if you have spent less than normal by a certain point during the month, iGaranti's avatar may suggest a transfer to savings. If you have spent more, you may be offered a quick loan.

The service also offers promotions tailor-made for the customer. iGaranti identifies the customer's favourite shops and other brands by analysing their spending habits, providing exclusive offers.

If the customer wishes, they can allow the app to harness their handset's GPS technology to send alerts setting out offers at retailers, restaurants or other businesses nearby.

While some of us may consider such messages as an unwanted intrusion, many Turkish customers want these alerts. In fact, demand for these offers has helped propel iGaranti to the top of the charts of the country's most downloaded app.

Even the way customers operate iGaranti is pioneering. Many of its functions can now be performed by talking to the app's avatar using voice activation software.

In July last year a global research firm rated iGaranti most highly out of apps offered by 32 major retail banks across 11 countries including the UK, the US, Canada, Australia and a range of European countries.

Iceland: a nation banking online

Iceland may not be your first port of call when looking for a story of banking success. But the island's finance industry is well on the way to recovery since the crisis of the last decade. And in one aspect of banking this nation leads the world.

The Icelandic people have embraced internet banking more than any other nation, with 91% of the population banking online, according to research by statisticians at the consultancy Statista. That compares with around 57% for the UK.

One of the explanations provided for Iceland's high adoption rate for e-banking is a little known company based in Reykjavik called Meniga, an expert in so-called Personal Finance Management (PFM) software which gives consumers more insight into their finances than ever before.

Launched in 2009 with Islandsbanki, Meniga's technology initially allowed users of internet and mobile banking to see highly detailed breakdowns of spending by a range of categories, including groceries, fuel, restaurants, cafés and entertainment. Customers can set targets for how much they want to spend on these groupings.

Customers can also see how similar their spending or saving is to people living in the same parts of the country as them or equivalent household sizes.

Islandbanki said Meniga's PFM led to a significant rise in the number of customers who wanted to sign up for internet banking. More

than 40% of users believe it has improved their financial behaviour and almost 90% say they would recommend it to their friends.

Meniga technology has now been harnessed by 24 banks in 16 different countries, with more than 25 million customers around the world using mobile and internet banking fitted with its software.

The Icelandic company's technology has continued to evolve. At this year's Finovate conference in London, the firm showcased its Market Match system. Using a rolling display very similar to Facebook, this platform allows banks to pass on offers from restaurants, retailers and other service providers determined by where their customers are at a given moment, their past spending habits and whether the offer itself saves the user a significant amount of money.

Speaking at the event, Georg Ludviksson, Meniga's chief executive, described the future of banking as a world where "banks use data to become a smart and trusted adviser to people in a broader and more meaningful way than today – at the same time delight their customers and evolve their business models."

New Zealand: Westpac harnesses augmented reality

The words "augmented reality" may sound like something swiped from the script of the Matrix films, but some banks are starting to harness this eye-catching technology to make financial information faster to access and easier to understand.

Last August, New Zealand's Westpac unveiled a new app which allows customers to see a welter of financial information by simply pointing their smartphone's camera at their bank card.

Once a card has been registered with their banking app, the technology allows customers to receive balances, transaction history, spend location and other financial details displayed in clear, colourful 3D graphics.

It also provides details of how many loyalty points have been accrued, warns how many days until payment is due or gives the option to pay immediately using the app. Customers can only read details associated with their own cards.

"It starts giving customers more control or insight into their finances," Simon Pomeroy, chief digital officer of the Auckland-based bank says. "For most customers, personal financial management becomes quite cumbersome, it can look quite techie. This brings it to life in a really simple way."

Another augmented reality feature of the same app is a tool that helps customers navigate their way to nearby cash machines.

The brain behind this app was in fact a young, unnamed British scientist who entered an "app challenge" launched by Westpac. This encouraged customers and software developers to present ideas that solved one of their own personal frustrations with their bank.

Already developing apps as a side-line to his day job, the young scientist won a free trip to NZ and a prize worth around £10,000. He also, perhaps most importantly, retained the intellectual property to his invention.

United States: cheque imaging technology

To many of us here in the UK the idea of taking a picture of a cheque on our phone and then emailing it to our bank rather than having to find time to pay it in at a branch of the Post Office may seem impressive.

However, bank customers have been able to do this on the other side of the Atlantic for more than a decade. A US law making this possible took effect in October 2004, partly inspired by the terrorist attacks of 11 September 2001. With airplanes grounded across the country in the wake of Al-Qaeda's actions, the cheque payment system also ground to a halt.

Mobile phones weren't mainstream when this law passed, but the legislation allowed banks to accept a scanned image of a cheque. However, since the emergence of the smartphone Americans have embraced this technology.

Just under 11 million US citizens used this technology in 2012, according to analysis by Celent, a research consultancy. That figure grew to 33 million last year and is expected to rise to 47 million this year. By 2016, 61 million US citizens are expected to have harnessed cheque imaging.

Norway and Sweden: the lands where cash is no longer king

There are few countries considered closer to becoming cashless societies than the Nordic nations.

The Swedish people already carry out more transactions per head with bank or credit cards than any other Europeans. The average Swede made 230 card payments during 2012 – compared with 167 for the typical Brit. In Italy that figure stood at 28.

Some Swedish banks have even stopped accepting cash deposits or withdrawals. Even sellers of *Situation Stockholm* – Sweden's equivalent of *The Big Issue* – are now accepting plastic after being provided with card readers from iZettle, a mobile payments specialist.

More than 2 million Swedish people are using Swish, a mobile payments service set up jointly by six banks in 2012. More than €181 million a month are typically transferred using this service, with the term "swishing" even entering the country's language. The payment service is in the process of being widened to include e-commerce transactions.

One of the nation's most passionate campaigners for a cashless society is Bjorn Ulvaeus. The Abba singer lived without coins and notes for a year after his son was robbed and has argued that cash encourages crime and fuels the black market.

It's a similar picture in Norway. With encouragement from the government, Norwegian banks stopped accepting cheques a few years ago. Finans Norge, a Norwegian business association, recently suggested that the country is on track to become truly cashless by 2020.

"Cash now represents such a small proportion of payments in society, that we could well do without it," the group has said. "It costs society a lot to handle cash."

A recent study by Norway's central bank estimated that when one takes account of the handling of notes and coins inside banks, a typical cash transaction costs around 62p. A card payment costs in the region of 36p, the report found. Withdrawing or limiting the amount of cash in circulation has support from a number of governments in other countries. Doing so is considered a potent way to make life harder for fraudsters, terrorists, drug cartels and other criminals.

Ministers in Israel were last summer presented with a three-stage plan from a government committee to end the use of cash in the country. This panel said that the black market accounted for as much as 20% of the state's GDP, arguing that withdrawing coins and notes would help boost tax revenues and combat money laundering.

Indonesia's government sees promoting payments via mobile phone as a pragmatic step to boost financial inclusion and bear down on the black market.

"Less cash, less corruption, more transparency," says Rico Usthavia, a senior executive of Mandiri, one the country's biggest banks.

Long spoken of it may be, but the cashless society still seems a long way off – even in Sweden. The Swedish central bank has recently unveiled a new generation of coins and artistic banknotes.

Asia: The branch of the 21st century

There have been predictions of cashless societies for many years. There have also been those who have forecast the end of bank branches too.

However, thousands of our high street outlets have been refurbished in recent years – suggesting that Britain's high streets will still be populated by bank branches for many years to come.

Japan, Hong Kong, Singapore and other parts of Asia are home to some of the world's most innovative bank branches. Citi, the large US banking group, has opened well over 100 Smart Banking Branches across the region, featuring state-of-the-art technology designed to offer customers fast, easy-to-use service.

These bright, modern spaces were designed by the architects behind Apple's retail outlets. One of the first things a customer notices as he or she wanders into one of these Smart Banking Branches are the large, wall-mounted Media Wall screens where customers can look at the latest news or check the state of financial markets.

These branches also feature long desks called Work Benches, where customers can log-in to their accounts and perform transactions using tablet-like computers equipped with keyboards. Dividers and an appropriate space between the screens provide privacy.

Citi Service Browsers, large wall-mounted touch screens, allow customers to explore the details of the bank's financial products. This aims to cut down the amount of printed material in the branch.

Each of these branches also has consulting rooms, where customers can either talk more discreetly with the bank's staff or video conference with employees working elsewhere who may have more specialist knowledge.

There are also sophisticated ATMs known as 360 Stations, where customers can apply for loans, video conference with staff, apply for cashier cheques as well as perform all the other conventional tasks customers expect. Users can pull out a handset to add privacy while speaking.

In time, these devices will allow customers to instantly print bank and credit cards. Those located in an ATM hall or outside the main branch can also allow customers to speak face-to-face to a customer service adviser 24 hours a day.

After successful launches in Asia, Citi has now opened Smart Banking Branches in the United States, India, Rio de Janeiro, Dubai and elsewhere.

Africa: how the mobile phone has increased access to banking

Step off a plane in Nairobi and you will find a culture of mobile payments seemingly far more advanced than many Western cities.

Jump in a taxi, buy a drink in a bar or shop in a Kenyan supermarket and you will be expected to pay by M-PESA, a mobile payments system launched eight years ago by the telecoms group Safaricom with the encouragement of the country's central bank.

According to figures from the World Bank, 68% of Kenyans now use their mobile phone to make financial transactions. Others have estimated that figure could be as high as 80%.

M-PESA allows customers to make transfers, pay bills and buy airtime using their mobile phone.

While Kenya may be ahead of many more affluent countries, it is certainly not the only part of the Africa where adoption rates for this technology are far higher than in the developed world. More than half of the populations of Gabon and Sudan are using mobile banking in a similar way.

A third of the residents of Algeria, Congo and Somalia are doing the same. M-PESA has also been launched in India, Afghanistan, South Africa and Tanzania.

Electronic money is simply more convenient for many people in the developing world where transport infrastructure is unreliable and branch networks are weak.

These may be cash economies, but getting hold of folding money remains far from easy. World Bank figures also show that in 2013 Kenya had just 10 cash machines for every 100,000 of its people. In Sudan that figure stood at just 4.6. In Chad there was less than one ATM for every 200,000 citizens.

In many developing economies mobile banking is increasingly seen as a catalyst for bringing financial services to millions of citizens who have been unbanked. Njuguna Ndung'u, the former governor of the Central Bank of Kenya, says that 60% of the population were financially excluded the year before M-PESA was launched. By 2013 that figure had fallen to 25%.

The next step, already underway in Kenya, is to use the smartphone to foster a culture of saving amongst millions of people who previously never had bank accounts.

Services such as M-Kesho and M-Shwari pay interest on deposits and encourage greater financial resilience. In time, building a greater savings culture will only help promote economic development in some of the world's poorest countries.

Poland: Pioneering security at your fingertips

Some Polish customers in need of cash need never worry about forgetting their PIN number again.

A new scheme known as Planet Cash allows customers to withdraw money, check their balance and transfer funds with a cash machine by using biometric images taken from their finger. The account holder does not even need to insert a bank card.

A finger is placed on a scanner, which uses near-infrared light to capture a vein pattern unique to each person. This technology is harder to fool than previously piloted forms of biometric security.

IT Card, the ATM operator behind the scheme, is in the process of installing the technology across a network of around 2,000 ATMs across Poland.

Other Polish banks – including Getin Bank and Bank BPH – have already offered biometric security features on their ATMs, however this is by far the largest rollout in a European country so far.

United States: Access to your bank balance in a blink of an eye

The American financial service group USAA has become the first bank to allow tens of thousands of customers to access their mobile banking simply by winking into the camera on their smartphone.

More than 100,000 customers using USAA's mobile app have already signed up to use the facial and voice recognition features launched over the past year.

The bank says that these technologies can be more secure than passwords and passcodes, which can fall into the wrong hands or even be guessed by fraudsters.

Because the facial recognition software obliges the customer to blink at their phone's camera lens, someone who simply presents a photo of the account holder to the camera will not gain access.

Similarly, having a recording of the customer speaking will not grant access if the customer has secured the app with voice recognition security. Only a short phrase chosen by the customer and spoken by them will allow access.

USAA says that 94% of legitimate customer biometric log-ins are successful first time. Facial recognition log-ins typically take no more than two seconds, although those activated by voice can take as long as 20 seconds.

The software tracks the customer's face examines bone structure, so it can easily cater for customers who cultivate facial hair or don a pair of sunglasses.

Accessing your banking app using face or voice recognition may not always be ideal. Your phone may not pick up a clear signal of your voice in a noisy environment. If you are sitting in a darkened environment facial recognition software may not be so effective.

Life in the 21st century has obliged many of us to accumulate dozens of log-in details, and passwords for a mass of different financial products, websites and other services.

Many banks are looking at ways to secure mobile and internet banking in a way that will not oblige customers already overloaded with a multitude of log-in details to remember yet more PINs and passwords.

Better still, something truly unique to the customer such as a spoken phrase or face shape can offer more protection in the fight against fraud.

BBA World of Change

PART THREE

The Way We'll Bank in the Future

"Our expectations as customers are being set by how the very best businesses in the world harness digital. When you can now order a taxi, jump into it and get out the other end without so much as reaching into your pocket for a wallet – well, that sets the bar for us all."

Marc Lien, Lloyds Banking Group's director of innovation and digital development

"There is an asymmetry at the moment that can look unfair. At the moment the banks hold a lot of information, but don't share it with you, the customer. Similarly, retailers hold a lot of information, and do not share it with the customer. Why on earth would you let that persist given that you now have a supercomputer in your pocket with capabilities we are only starting to scratch the surface of? The ethos behind this is about giving power to the customers, allowing you to make better decisions."

Edward Twiddy, chief operations and investment officer at Atom Bank "Banking by mobile phone and other digital devices really is the first stage of what the digital revolution means for banking. The next stage could be much bigger and more profound – digitising the businesses to use data and other services to provide more information, guidance and value for the customer."

Eric Leenders, Executive Director of Retail at the BBA

"By automating the day-to-day transactional stuff it frees up our colleagues to focus on what matters most – helping our customers achieve their aspirations."

Matt Hammerstein, head of client and customer experience at Barclays

The Way We'll Bank in the Future

Will the next great innovation in the way we spend, move and manage our money spring from the site of a once derelict East End department store?

Eighteen months ago work began on transforming the grand, classical building once home to Wickham's on London's Mile End Road into the UK hub of the Barclays' Accelerator, a programme that fuses together some of the world's most visionary technologists with leading banking and business experts.

The dusty piled up mattresses and other refuse left from decades of disrepair are long gone – replaced with 3D printers and meeting rooms accessed using finger-vein security.

"We're looking for teams with the potential to genuinely transform financial services," explains Oliver Stephenson, the London Accelerator's community manager.

"We can't bury our head in the sands and ignore how technology is changing the world and what it could mean for our industry.

"There are many examples where banks have introduced their own innovative technologies, such as Barclays' Pingit. However, we think closer partnerships between the tech and banking industries are vital to make sure we get the best new banking technology into our customers' hands as quickly as possible."

Barclays' Accelerator is a partnership with Techstars, an international network that provides seed funding and practical advice for entrepreneurs

"Closer partnerships between the tech and banking industries are vital to make sure we get the best new banking technology into our customers' hands as quickly as possible."

Oliver Stephenson, the London Accelerator's Community Manager striving to build their businesses. Places on the programme are hotly contested, with around 50 applications for each of the 10 slots.

The 13-week course aims to equip the teams with everything they need to grow their businesses, including advice on marketing, banking regulation and how to attract investors.

The teams receive extensive mentoring from a range of experts, including Barclays staff. There are also valuable opportunities to network with the range of digital and financial experts who visit this inspiring East London campus day after day.

Squirrel had a place on last year's Barclays Accelerator. Billed as a "financial well-being programme", this start-up helps those on lower incomes budget for larger purchases and ring-fence funds for – and potentially save money on – household bills. It can spread monthly pay cheques into weekly instalments, reducing the chance of a customer being caught short in the run-up to payday.

A team from dopay also completed last year's programme. This start-up allows employers to pay staff without a bank account with prepaid debit cards, which the employees can then manage with the help of a mobile phone app.

dopay aims to improve the lives of many of the 2 billion people around the world who have a job but do not have a bank account. It could also make life easier for those businesses that have traditionally had to safeguard and distribute large volumes of cash to pay their staff.

The Barclays Accelerator is simply one of many programmes designed to forge closer relationships between the banking and technology industries. Lloyds Banking Group supports the Startupbootcamp FinTech, which offers entrepreneurs mentorship from more than 200 business experts, investors and other partners.

Lloyds also holds a series of regular events bringing together designers, bankers, leading technologists and customers to build prototypes and design new products over a series of days.

The bank even holds lectures similar to "Ted Talks" at its London digital hub, located close to the part of the capital dubbed "Silicon Roundabout" due to its teeming array of tech firms. Lloyds' digital headquarters houses 800 staff who work full-time on the bank's digital services. These talks – known as "espressos" – bring together experts from both sectors to share knowledge and ideas.

A closer working relationship between banks and technologists has many advantages. The technologists gain a greater insight of what banks are able to implement and what their customers are looking for.

"On the outside banks can look like big, lethargic institutions," says Marc Lien, director of innovation and digital development at Lloyds Banking Group. "For us, though, we are investing heavily to counter this view and transform the bank for our customers. We have significant agendas in digital, innovation and agility– it lies at the core of what we do."

Lloyds Banking Group is a supporting partner of the UK government's Innovate UK programme, working with tech-startups to address the challenging question of addressing financial inclusion and literacy. Lien says "this approach taps into the collective genius of the FinTech community to work with the bank to address real societal challenges and to help Britain prosper." There are those who see the banking industry as under threat from the technology industry, both from the giants of the internet and small, savvy start-ups – perhaps as many as 12,000 according to estimates by McKinsey.

The reality is more complex – and arguably more exciting for us as customers. Increasingly banks are working hand-in-hand with technology firms.

Nationwide is a prime example of this. Britain's biggest building society has partnered with start-ups in California's Silicon Valley and organised a number of Hackathons – events where computer programmers and other software developers work together intensively on software projects.

"To be honest banks have managed to produce a lot of very impressive mobile and other banking innovations themselves," says Daryl Wilkinson, head of group innovation at Nationwide. "But there are even greater opportunities if we put together the innovation of tech firms with the trusted, expertise of a bank."

On the one hand many of us want to harness the latest innovation that the world's brightest tech entrepreneurs can dream up. But on the other hand many of us will be reluctant to move our financial assets away from organisations that have long histories and which we may have had a relationship with for many years.

So, what innovations could these new partnerships between the banking and technology industry create to help manage our finances in the future?

Unlocking data to serve you better

Three years ago the advent of smartphones and tablets allied with 3G, 4G and reliable high-speed broadband made it possible for banks to offer fast, reliable and easy-to-use mobile banking.

Now, a similar revolution is possible due to rapid innovation in the technology that allows financial information to be processed. The speed at which large volumes of this data can be analysed has increased dramatically and as a result the cost of doing so has plummeted.

"Data processing that a few years ago would have taken months to process at a cost of hundreds of thousands of pounds can now be done in 12 hours for as little £100," says Matt Hammerstein, head of customer and client experience at Barclays.

"Where I think technology gets really exciting for retail banking is when you start to think of what this allows to be done with data analytics. How can we better use this faster and cheaper processing speed to help customers do what they need to do?"

There are two, interlinked types of services that this evolution of data processing will help deliver which are being widely discussed in banks.

The first of these is Personal Financial Management – often referred to as PFM. These features give customers greater knowledge and insights into how they are spending their money, for instance by breaking down spending into categories such as food, household costs and leisure activities. Harnessing payments data will, for instance, give customers a greater understanding of how their spending habits compare with other people in their locality.

The second type of service that is ripe for rapid evolution is the sending of highly tailored alerts and advice directly to the customer. The more simple of these could be an alert saying that your bank has noticed that you pay significantly more for your energy than similar households in your street, and that those who opt for a certain provider typically spend 10% less.

However, bank digital experts say that when you marry this data processing with GPS-enabled smartphones there is enormous potential to give very timely alerts that save customers money, provide useful information and ultimately improve their lives.

The possibilities of this technology are enormous. Imagine you walk into your favourite clothes shop and an alert from your bank tells you that the shop is offering you 10% off based on your previous spending.

Or imagine if you have been looking for properties worth £300,000 in a certain part of town. A few days after speaking with your bank about a mortgage you find yourself in a park, when an alert appears on your phone informing you that there is a house fitting your specifications and in your price range just a minute's walk way. The notification could include the contact details of the estate agent so that you can view the property there and then.

Similar services to these have already proved enormously popular in other countries, including Turkey. iGaranti, an app offering such tailor-made recommendations to customers of one of the country's largest banks, has at times been Turkey's most downloaded app on iTunes.

RBS and NatWest are currently experimenting with similar services that offer insights into how we manage our finances, not dissimilar to how a personal trainer might offer tips on your running style. The tips can include reminders for paying household bills, suggestions for cheaper energy providers or some context about how much you save compared with your peers.

RBS and NatWest are also piloting a series of apps that offer customers personal finance advice, giving customers advice to help them better prepare for major life events, such as having a baby, taking time away for work or getting married.

There are those of us who would find time to sit down with a spreadsheet and work out the implications of such events, and others would welcome the help at such times. These apps help customers model what impact these major life events will have on their finances, based on the experiences of previous customers.

"We are experimenting to find the ones which resonate with people – we don't want this to be invasive," says Chris Popple, managing director of digital at RBS and NatWest.

"Nobody wants to go into default or feel that they're not saving enough. So using data in this way could really help customers feel far more secure about their finances and help rebuild the trust they have in their banks – and that's good for everyone."

Atom Bank is a new entrant expected to launch in the second half of this year that will focus on delivering its products and services through

"Using data in this way could really help customers feel far more secure about their finances and help rebuild the trust they have in their banks – and that's good for everyone."

Chris Popple, Managing Director of Digital at RBS and NatWest smartphones and tablets. Edward Twiddy, the bank's chief operations and investment officer, believes that many customers will welcome the opportunity to use carefully tailored alerts and offers.

"There is an asymmetry at the moment which can look unfair. At the moment the banks hold all this information, but don't share it with you the customer. Similarly, retailers hold a lot of information, and do not share it with the customer.

"Why on earth would you let that persist now that you are holding a supercomputer in your hand with capabilities we are only starting to scratch the surface of?

"The ethos behind this is about giving power to the customers, allowing you to make better decisions."

There are certainly signs that millions of customers would be very ready to embrace such offers and advice from their bank. Many of us already request text alerts to be sent to our phones if our current account balance drops below a certain level or to say if a major transaction comes out of our account.

Similarly, three million customers of Lloyds Banking Group have already signed up to receive details of money-off vouchers and other deals through newsletters or other alerts on the group's websites.

"Internet banking was a breakthrough – it allowed us to bank whenever we wanted," says Lloyds Banking Group's Marc Lien. "But mobile really is the paradigm shift – you are now walking around with a bank in your pocket.

"Now it is possible for that bank to offer all sorts of very timely knowledge and insight that it never has before. It is down to customers to decide whether they want to use these services, but millions are already showing they have an appetite to use very similar services in other industries."

Using all that information about what goods and services we buy – and when and where – will also give banks the opportunity to offer far better tailored financial products to their customers than ever before.

"In the past we wandered into a bank branch and picked standardised financial products and tried to cater them for our needs," Matt Hammerstein of Barclays explains. "Where we are heading is a place where banks can build products tailor-made for just one customer."

So could harnessing data in this way make the mis-selling of financial products less likely? Only promoting products and services to customers where the bank has good grounds from its data to believe they are suitable surely reduces the likelihood of them ending up with an inappropriate mortgage, loan or insurance policy.

Atom Bank's Edward Twiddy speaks of an ethos where "we never sell you something – you have to choose to buy something".

"There will never be an Atom Bank salesforce," Twiddy explains. "There will never be someone with sales in the forefront of their mind because that is how they are measured and rewarded. If you put these things together, the conduct of bank staff could look very different."

However, there is a challenge banks need to meet if they are to become trusted to use customer data in this way. Mistakes have been

made in the past where banks sent direct mail to customers in what appeared as an untargeted way. Banks are determined to recover that position of trust by only presenting offers and services that are of real interest and value to the customers.

The next generation of business adviser

Using financial data in this way also has enormous potential for business customers. Banks hold a considerable amount of data about those who shop or buy services from their business customers.

"Over time we've done nothing with that data – why?" asks Hammerstein. "Is there an opportunity to share that data with a business customer in a format that helps them grow?"

He gives the example of a greengrocer in south west London who could be provided with details of their customers' average age, demographic and earnings in a secure, anonymised way. It would be possible for him or her to receive information about where his typical clientele live – perhaps giving a good idea of where it would be sensible to open their next store.

It would also become possible to compare their sales with similar businesses, in that part of London, across the city or nationwide.

"What a phenomenally rich set of data for any ambitious entrepreneur," Hammerstein says, adding that from there it could be the job of banks' small business advisers to recommend ways to approach possible customers suggested by this information.

There is enormous potential to use technology to radically change the way businesses develop their products and services. HSBC says that the bank is talking more and more closely with other businesses in different sectors which serve the same people.

"There are many businesses out there where we have mutual customers and where, if we work together, we can deliver much more for these people," says George Charalambous, HSBC's head of mobile banking.

"Take the example of a supermarket that may be working on a platform that allows its customers to build a shopping list at home by scanning barcodes on the foods in their cupboards or fridge.

"We can then offer a payments platform that fits with that. More and more conversations between us and our corporate clients are starting to take place along these lines."

Metro Bank will this summer launch a new accounting service for business customers which will allow them to manage their venture's finances on the move. Created by the IT firm Xero, the system will allow customers to import and categorise their bank statements automatically, making manual uploads and downloads redundant, and saving them valuable time. Xero provides customers with the ability to streamline their accounting and banking processes, with customers able to reconcile their accounts with one click, manage their business data in one place, create smart reports and professional invoices – all of which can be managed on the move, through their state-of-the-art app.

Breakthrough for wearables

One of the most closely watched innovations in the banking world is outside the industry. Bank technologists believe that many customers will want to harness their Apple Watch to manage their finances. Launched in April, many banks have already released banking apps tailor-made for these devices.

However, there are still many observers who have been sceptical about wearable technology. We think of a wristwatch very differently to a mobile phone. A watch is part jewellery, part fashion statement. For many people what they wear on their wrist says a lot about how they perceive themselves and what image they are trying to convey.

Daryl Wilkinson, head of group innovation at Nationwide, says these facts alone were always likely to mean that wearable technology would take longer to take off. "I do think wearables are now coming out of novelty," Wilkinson says.

"It's very interesting to see that Apple sold more [smart] watches on the day of their launch than the entire wearable market up to that point. That is the Apple effect."

So what services could banks provide to their customers with wearable technology?

"We know people do want more advice and support with their finances," he says. "Imagine you're out shopping and you see something in a shop. It could be quite useful to have a notification on my wristwatch that says that I might be able to get that cheaper buying that online – and asking if I want to do that right now using the watch."

Faster, easier and more secure access

How many passwords and log-ins do you have to remember? One for your internet banking. Maybe another passcode for a mobile banking app. You may have a PIN for telephone banking too. Many of us have more than one bank account, with a savings account and credit card elsewhere.

And that's just for banking. How many other account log-ins do you have to remember for internet service providers, email accounts, mobile phone accounts, favourite online retailers and energy providers.

"Remembering your passwords and passcodes is getting harder and harder – and that's a direct result of the ubiquity of online services," says Chris Popple. "Many of us now typically have 25 or 30 of these log-in details to remember. It's becoming harder and harder for customers to remember the things they need to do to access services."

This can discourage some of us from using some bank services.

Take phone banking, for example. Usage has started to decline in recent years as mobile and internet banking has boomed. Many of us only log-in to phone banking may be once or twice a year – and so remembering security details isn't always easy. How many people have therefore been discouraged from giving their bank a call and instead grudgingly decided to go to a branch instead, even though that could take significantly longer?

Here lies one of the most compelling cases for biometric security features, such as facial, fingerprint or voice recognition. Accessing mobile

or internet banking can remove the need for remembering all those "memorable words" or multi-digit codes that often seemed very easy to recall when you opened the account but may have lost their immediate relevance when needed months or even years later.

Biometric security features can also be faster. RBS and NatWest say that incorporating fingerprint log-in technology into its banking app back in February has proved very popular. Customers simply place their thumb print on the screen to gain access – saving a few seconds and the need to remember a four-digit code. This feature is available to any user of RBS or NatWest's mobile banking app with an iPhone 5s or 6.

"That seamless ease of use is phenomenal," says Michelle Kent, UK digital director at Santander of the latest iPhone fingerprint security features. "Going back to a pin code after that is really frustrating.

"I can now pay for music on my iTunes account with just one fingerprint authentication. In time I can see how this will be possible for banking services too."

Meanwhile, Halifax is trialling wristbands that use the unique electronic signals sent out by our hearts to confirm the customer's identity when they want to access their banking app. This heartbeat system would negate the need for a passcode and give the customer near instant access to their app.

Marc Lien, Lloyds Banking Group's director of innovation and digital development, argues that banks have to compete with the very best of technology on offer not just from other banks – but from all businesses their customers now come into contact with. The old industry silos no longer apply, he says.

"If the banking industry is going to remain relevant to our customers, we must be where our customers are – watching and testing the type of technology they are using," says Lien.

"Our expectations as customers are being set by how the very best businesses in the world harness digital. When you can now order a taxi, jump into it and get out the other end without so much as reaching into your pocket for a wallet – well, that sets the bar for us all."

Better communication

We can phone our bank. We can send letters or step into a branch. We can email, send a message on Twitter or Facebook. We can also video conference.

There may still be more ways to improve the way we talk to our bank. RBS and NatWest are now considering introducing a secure message system similar to WhatsApp, which allows you to talk quickly via an instant messaging platform and has already attracted more than 600 million users across the world.

"It's a small technology, but it could have a massive impact," says Chris Popple. "There are people who don't have time to ring up their bank or pop into a branch to ask a few questions. This could be a very convenient way to communicate for them."

We are not short of ways to bank or methods to talk to our bank – but could these different services all work together more smoothly? One of the



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criticisms that bank technologists make of their own systems is that they are often not "seamless" – that is to say that the different ways we can bank do not always work together. The term these experts use is "multi-channel" – branch, mobile and other platforms working in greater harmony.

Michelle Kent, Santander's UK digital director, gives a feel for what may soon be possible. "So, if you have a branch appointment the next day – and you receive a text reminder on your phone. But you realise that something has come up and you can't make it.

"You ring your bank and they offer you some alternative dates, you accept one and that automatically goes straight into the calendar on your phone. But later in the day you find yourself on your high street. Using a combination of GPS and beacon technology your bank can see you are close by and sends an alert to your mobile phone to let you know there has been a cancellation and that they can see you at 4 o'clock if that would be convenient.

"I can envisage that all being possible in the not too distant future."

Conclusion

Technology is giving us as customers more choice about how we bank than ever before. Many of us, that is – but not all.

There were around 6.4 million people in the UK who had never used the internet, according to the Official for National Statistics' most recent estimate published in May 2014.

Some choose not to go online, of course. There are others who lack access to high-speed broadband, 4G, 3G or even a dial-up network. Others cannot afford the hardware necessary to harness the internet.

Life offline can prove more expensive. Many goods and services can be found cheaper on the internet. "There is a premium people often pay for not using the internet," Marc Lien at Lloyds says. "If you are digitally aware you can often save money."

"That's why we have committed to recruit 20,000 digital champions in our business by 2017 to help all customers access these services. This provides equity in a world where technology is providing many people with a step-up."

Britain's frontline bank staff are often the guides who help those who have lived without the internet take their first steps online. After having internet or mobile banking explained to them by a member of branch staff, that customer can feel much more confident about learning how to use email or other internet services.

"Banks have an important social role to help our customers in this way," says Lien. "We passionately care about helping both individuals and businesses take advantage of the internet. This is a new way to help customers that hasn't been possible before."

While many of us want and value that support, there will still be those of us who do not want to use mobile or internet banking – let alone some of the other innovations discussed on the previous pages.

"There are customers who simply aren't ready for that type of banking and we need to be very sensitive to that," says Eric Leenders, Executive Director of Retail at the BBA.



Britain's frontline bank staff are often the guides who help those who have lived without the internet take their first steps online.

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"We need to get the security right. We need to understand that not all customers can access the technology you need to be able to bank in this way. That can mean being able to afford a mobile phone or living in a part of the country which has access to 4G.

"We also have to make sure we move at the right speed on all this. If you push too far and too fast – customers recoil. It's a difficult balance to strike."

That's the challenge facing the digital banking experts we have spoken to while compiling this report. Harnessed in the right way this technology offers the chance to greatly improve and broaden the services banks deliver for their customers. However, these innovations have to be offered sensitively and securely in fast, easy-to-use ways.

For Hammerstein and many others in the industry, this is the next horizon for banking.

"By automating the day-to-day transactional stuff it frees up our colleagues to focus on what matters most – helping our customers achieve their aspirations," he says.

So, perhaps you could say all this is not really about technology at all. It's actually about our banks' staff and the people they serve.

As Hammerstein has it: "Technology simply unlocks the opportunity to fundamentally change our businesses and deliver so much more for our customers."



David Ebstein Head of Digital for Financial Services,





Catriona Campbell Director, Seren



Making innovation happen by focusing on the customer

It all starts with customers

Customer behaviours and expectations are changing at an ever increasing pace. This is driven by technology ubiquity and habits set by internet companies that have largely come to life over the last decade and a half. As a result, the gap between what customers expect from banks and what banks can deliver is wider than ever.

Yet EY and Seren believe that the quality of customer experience banks offer has become their main source of competitive differentiation in today's market. Only those that become truly customer-centric will be able to deliver the exceptional experience that is key to winning and retaining customers in the face of competition from both new and traditional players. We are seeing banks become much more attuned to customer expectations and translating these into a new breed of products and services. The area of payments is a vivid example.

Customers in the digital driving seat

Digitally native companies such as Amazon, Alibaba and Zappos, are changing consumer behaviours and expectations faster than financial institutions can respond. Consumers have become accustomed to instant (or near-instant) gratification, outstanding service quality, simple and intuitive processes, 24/7 availability, self-service, transparency of products and pricing, personalisation and tailoring, and a consistent experience across all channels. It comes as no surprise that customers bring these expectations to their dealings with other service providers, including their bank.

To add further complexity to the challenge facing banks, consumers are taking ever increasing control of their personal finances. As they move from researching to eventually buying a product, customers switch from site to site and from channel to channel, questioning service providers, reading online reviews and seeking advice on social networks as they go. Consumers expect to be able to do the same when choosing and buying financial products.

From incremental change to total reinvention

This rapid change in what customers are looking for is shaking up the banking market. The number of complaints banks handle daily has skyrocketed. Customers, who in the past would remain with the same bank for most of their adult lives no matter what, are now much more likely to switch. This could lead to a 'winner takes all' effect, with banks that adapt the fastest likely to take significant market share from their competitors. And, with the level of competition now coming from FinTech players, there is no absolute guarantee that it will be traditional banks who will win. In 2014 an EY report, commissioned by UKTI, (Landscaping UK Fintech), calculated that the UK FinTech industry already generates around £20bn in annual revenue, and the industry continues to go from strength to strength.

New FinTech entrants, such as Nutmeg or TransferWise, are already focusing on specific areas of the banking value chain, and are naturally agile and customer-centric. We know that delivering customer experiences that meet the expectations of today's digital consumer will require much more than incremental improvements to yesterday's processes, which were designed for a banking world based on branch, telephone and mail interactions.

Banks must completely reinvent their customer processes to offer customers the exceptional but simple experience they seek, as well as choice, flexibility and transparency. They must also deliver this change in a way that is rapid and agile. Banks need to start from a blank sheet of paper, with a new model of digital and mobile service delivery, fully integrated with, and complemented by, traditional channels. All this can only be delivered by designing services based on the desired experience outcome; that is, by putting customers first.

The challenge of putting customers first

All of the above does not take away from the advances made. Banks in the UK and other markets have made enormous progress over the last two to three years in offering customers a choice of channels, 24/7 self-service and improved customer experience. Despite this, banks still have a long way to go before they are able to match what the likes of Simple or Zoopla are able to offer in terms of truly cutting-edge customer experience.



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Understandably, banks are finding this journey challenging. Barnaby Davis, divisional director, group retail strategy at Nationwide, says: "People in the industry have been talking about customer centricity for many years, but I haven't seen traditional incumbent banks achieve true customer centricity."

So what are the main challenges they face? For smaller, traditional banks, it's the scale of investment required. Their larger counterparts face three distinct challenges:

- Firstly, they are used to operating in product or business siloes, whereby each part of the bank works independently from others. A separate team drives change in each part of the business, be it products, pricing, marketing, or operations. IT and other functions (such as risk and finance) work as an 'arms-length' supplier to the wider business. In order to become truly customer-centric, and fundamentally transform the customer experience, the different business teams and functions across a bank must all work jointly on the entire customer journey. This requires a complete 'rewiring' of the organisation.
- Secondly, the large banks have complex and inflexible IT systems that have been built in layers over the last 20 years. It's hard to connect these systems and integrate them with a digital front-end to provide customers with a coherent and seamless experience. However, the risks and cost to replace them should not be underestimated.
- Finally, increases in UK regulatory complexity, such as the introduction of the Mortgage Market Review last year and the pension reforms, make it hard to simplify traditionally complex and fragmented operational processes.

The Service Design approach

For the last 20 years, banks have been vigorously soliciting customer feedback and now have a mass of customer (dis)satisfaction data, which is informing new product and service design. Whilst enhancements in service can be identified, there has not been a consistent improvement in the quality of end-to-end services to date, either because of the siloed approach or because of system issues. This is both frustrating for the banks and a source of dissatisfaction for customers, who feel banks are ignoring their feedback.

Therefore, to deliver the reliable and efficient end-to-end experience customers expect, banks need thoroughly well-designed operations and products.

Service Design enables service provision to be simple, more efficient to run and intuitive to use. Crucially, it does this by looking at the complete experience from the customer viewpoint to deliver services that are 'simple, swift and elegant' – the guiding principles used by Google, Amazon and Apple to design their market-leading services. Virgin in the UK is another leading exponent of Service Design.

Service Design originated in the 1990s, in response to the new multichannel services made possible by telephone and the internet. It has traditionally focused on the 'front of house', improving marketing and customer service. However, designing truly great customer experiences also requires the seamless integration of backend systems and operations with the front end.

Customer centricity in practice

To overcome these challenges, Service Design should sit at the highest possible level of the organisation, thus preventing organisational design from unduly influencing the required changes.

Barclays addressed this challenge by creating the role of Head of Client and Customer Experience, reporting to the CEO of personal and corporate banking. This role has an overview of each customer interaction point, and effectively orchestrates the work across channels and product teams with an express purpose of improving end-to-end customer interactions.

Service Design requires teams across the entire bank, from product and pricing to operations and IT, to work hand-in-hand on the entire endto-end customer journey: we call these cross-functional teams. Previously, individual teams would have seen only their individual part of the customer journey. Through end-to-end Service Design, they suddenly have visibility of the entire journey and are able to see the impact that they are having on the end-to-end customer experience.

As a starting point, customer pain points and potential areas for innovation are highlighted by mapping customer journeys from start to finish, from the front line to back-office operations.

The cross-functional team then begins to co-create solutions with the target customer, to ensure customer centricity at each stage. The very practice of involving customers in the design process throughout has an energising effect on the organisation. It is typically done through face-to-face customer research and co-design sessions in customer research labs, which some banks have started to set up in their offices.

Service Design measures improvements to the customer journey, using qualitative and quantitative means, both before and after the design

alterations. As Barnaby Davis says: "What allows us to link customer satisfaction to the root cause factors influencing it is that we have incredibly granular data, both for customer satisfaction and for its drivers."

A key point to note, however, is that although banks have a great deal of customer data, they should not underestimate the complexity involved in measuring across channels and internal departments.

The opportunity in Service Design

Some organisations take designing banking experiences so seriously that they are creating whole departments dedicated to it. In 2012, Capital One in the US established its own customer experience design labs, and they state;

"At Capital One Labs, we're all about making products that have a big impact. That's why we get out of bed in the morning. When our team isn't venturing to build the next generation of financial products, we're partnering with other Capital One teams to tackle their biggest challenges. But, no matter the challenge, we're working to bring humanity and simplicity back to banking."

"We believe progress starts with a deep understanding of our customers. That's why Design Thinking is our go-to method for building the products and experiences that our customers need. This humancentered methodology, coupled with a 'fail fast' attitude, allows us to quickly identify, build, and test our way to success. We spend less time planning, more time doing, and, above all else, challenge ourselves to see the world through the eyes of our customers every step of the way."

In a further move to cement design at the heart of the bank's operations, this year Capital One acquired San Francisco-based Adaptive Path, a well-respected web design and consulting firm.

Adopting the Service Design approach yields great results. A bank we recently worked with found that they were able to reduce the average time it took customers to open a personal current account (PCA) by 50%, double PCA openings for customers not yet with the bank and increase the proportion of PCAs opened through mobile by ten-fold.

Talking the talk and walking the walk

Banks will find it challenging to sustain these results without committing to changing a culture that is obsessed with customers and acutely aware of the external environment, including competitors, new and emerging FinTech players, other industries and regulators.

Many financial institutions have been forced to focus on cost reduction since 2008. So while they all talk about customer centricity, leadership discussions almost invariably start with a focus on costs. But, as Nationwide's Davis says: "We, as an organisation, are really clear about our purpose. Every communication from our CEO and leadership discussion starts with a focus on customer experience metrics and the root cause driving improvements or deteriorations. We believe that, if we do the right things for customers, everything else will fall into place." And he continues: "We almost understand our competitors better than we understand ourselves."

Conclusion: rewiring the industry

At both EY and Seren, we believe that digital is enabling business transformation through technology. It is not enough for banks to innovate and introduce new digital channels and tools to customers. They must do so in the context of transforming the end-to-end customer banking journey. Digital should be an enabler of this transformation, not an end in itself.

Beyond this, banks need to change the way they are organised to become more cross-functional. The culture inside the organisation needs to become more customer-focused and externally-oriented. The banks who do this successfully, who design and innovate well and who integrate their innovations seamlessly into the customer experience will deliver truly engaging banking services. They will be the winners of tomorrow.

About EY

Meeting the needs of customers in an increasingly digital world means disrupting and re-shaping existing business models, products, services and experiences to reach the next level of operational efficiency.

EY's Digital Transformation team brings together a worldwide network of professionals with a wide range of skills, knowledge and capabilities. Our team has deep technical experience in providing digital strategy, digital marketing, customer experience transformation, digital channel development and transformation delivery services. They are supported by EY's wider expert network of leaders in regulatory transformation, cybersecurity and data management.

About Seren

Seren is an international design and innovation consultancy.

We use advanced research and measurement techniques to gain a deep understanding of customer need. We then use this insight to help our clients innovate, design new products and services, and improve the performance of existing ones.

We have over 15 years' experience in Financial Services, having helped many of the world's leading banks and insurance companies design better customer experiences and increase their revenues as a result.

Our experience in other sectors, such as retail, telecoms, media and healthcare, gives us a unique perspective on the challenges faced by many different types of global business.

About EY and Seren's collaboration

EY and Seren collaborate to serve clients on a broad range of customer experience topics, including Service Design and customer experience transformation. They bring to bear their complementary capabilities: customer research, Service Design, business architecture, IT architecture, regulatory compliance, people and culture transformation.

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