FINANCIAL SERVICES TECHNOLOGY

Can Britain be a world leader?

The government is urging the UK financial technology sector to power ahead and create a global centre of wealth-generating innovation and excellence

OVERVIEW

NIC FILDES

It wasn't so long ago that the term "fintech" would have been meaningless to most people, perhaps conjuring up images of a surfboard brand at best. Yet over the past few years, the term has gained increasing traction with London's business and political elite, and the burgeoning financial technology sector is being seen as a saviour of Britain's software and banking sectors.

There is no arguing with the numbers. According to KPMG, there has been a sixfold increase in investment in fintech companies over the past three years. Around $20 billion was poured into the sector last year which was up two thirds on 2014.

No wonder then that the government has leapt on the notion that Britain could emerge as a world leader in fintech given the City of London's strength in financial services. Ministers said last year that British financial technology generated £20 billion of revenue in 2014, and the UK and Ireland is the fastest growing region for fintech investment in the world.

> The UK government wants to help develop this sector, but warm words need to be followed up with blisteringly hot actions by a number of actors

There are emerging stars in the London market with companies such as TransferWise plastering tube stations and Facebook with adverts aimed at stealing business from the big banks. Yet banks are also taking a leading role as they look to catch the wave of new technologies, such as blockchain, to avoid being disrupted.

The 2016 Barclays Accelerator, the third of its kind in London, reads more like the portfolio of a Silicon Valley tech incubator. In this year's crop, the bank is hosting cognitive computing startups, machine-learning recommendation engineers, cyber-security players and blockchain-based invoice businesses.

Nikolay Storonsky, founder and chief executive of money app Revolut, says London has plugged into the funding industry while benefiting from the collaborative culture that has grown up around incubators such as Level 39 in Canary Wharf. He points out that £217 million has been pumped into UK fintech startups in the past seven months, including his company's near-$5 million capital raised this month when the likes of Balderton Capital and Index Ventures backed the young business.

"Fintech is hugely valuable to the UK economy," says Mr Storonsky. "The financial services sector alone contributes £150-160 billion in GDP annually so, of course, it is a significant focus point."

This suggests that Britain's fintech scene is indeed flourishing and could generate genuine economic value over time. Yet some are still to be convinced that presuming the geographical proximity of banks, finance and coders will ultimately lead to a booming industry.

George O'Connor, a technology analyst at investment bank Panmure Gordon, argues that Britain still only has a toe in the water of fintech success. "It is barmy to think that London can be the fintech capital of the world just because it is the capital markets capital of the world. Look at Silicon Valley – that became the world's pre-eminent tech capital without having a customer in 500 miles," he says.

"It is very welcome that the UK government wants to help develop this exciting, yet nascent, sector. But please be aware that warm words need to be followed up with blisteringly hot actions by a number of actors."

There is also a danger that the focus becomes too London-centric and some believe the government needs to look beyond the capital to ensure the UK's fintech scene is sustainable. Chris Maule, chief executive of the UK Bond Network, says London-based companies TransferWise and Nutmeg may be leading the way in alternative finance, but we need to look beyond the M25.

"There are arguments to suggest that London has succeeded at the expense of the rest of the UK and it is in this light that London should act as an example to policymakers in driving change in other cities and regions," he says. "We are starting to see similar support networks in other regions that enable tech innovation and business growth, and as long as this continues, and associated public support is deployed, the success of London can be replicated across the nation."

Visiting politicians have been drawn to Canary Wharf to marvel at the burgeoning fintech presence and some have hatched plans to adopt similar policies for their own markets. That could prove to be a danger for the dream of London being the global fintech capital as other markets jump on the bandwagon.

The *KPMG Fintech 100* index of the leading players and most promising startups lists 18 British companies. Yet Australia and New Zealand, with a fraction of the population of the UK, have ten entrants while China, which only contributed one company the year before, had seven listed. Britain may be in the race, but as in all areas of business, nothing can be taken for granted.

Ian Pollari, global co-head of KPMG's fintech practice, says: "The speed and energy with which fintech innovation is impacting financial services is gathering global momentum on many measures. This year's report underscores the international nature of fintech."

Whether a tiny startup or a gigantic FTSE 100 bank, the entire industry is looking down the barrel of change. Analysts CCS Insight say this is not being driven by developers, chief executives or government policy-makers, but by consumers.

According to CCS Insight: "Banking habits have been changing as users grow comfortable with conducting business on mobile devices and online, and the democratisation of smartphone ownership in recent years has allowed the network effect to kick in. It's created an environment in which person-to-person money transfer services can thrive."

Keeping up with that trend is key to London's continued progress.

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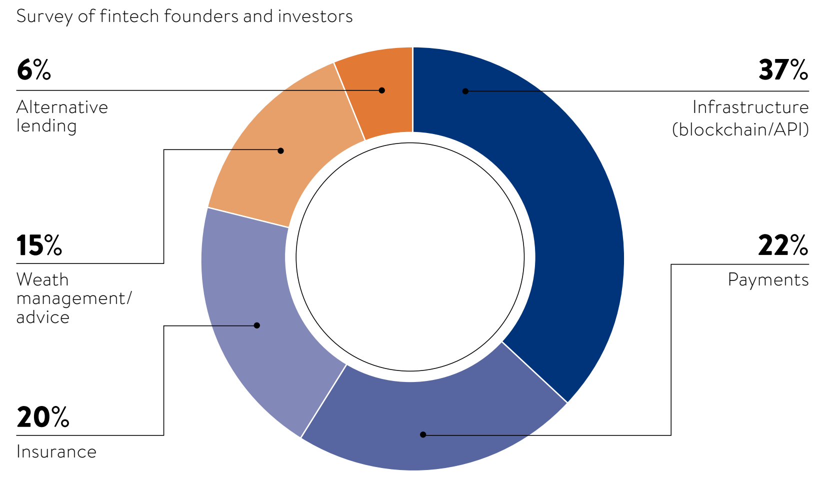
GREATEST OPPORTUNITY FOR DISRUPTION IN UK FINTECH

Survey of fintech founders and investors



Source: Silicon Valley Bank 2015

UK FINTECH SECTOR

£6.5bn of revenue was generated by the UK fintech market in 2015

Source: HM Treasury 2016

18% of the world's top 100 fintech innovators are from the UK

Source: KPMG 2015

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DIGITAL CONTENT MANAGER
Sarah Allidina

DESIGN
Samuele Motta
Grant Chapman
Kellie Jerrard

CONTRIBUTORS

STEPHEN ARMSTRONG
Contributor to *The Sunday Times, Monocle, Wallpaper** and *GQ*, he is also an occasional broadcaster on BBC Radio.

CHARLES ARTHUR
Author of *Digital Wars: Apple, Google, Microsoft and the Battle for the Internet*, he is a freelance science and technology journalist.

DAN BARNES
Award-winning business journalist, he specialises in financial technology, trading and capital markets.

NIC FILDES
Technology and communications editor at *The Times*, he was formerly with *The Independent* and Dow Jones Newswires.

CLARE GASCOIGNE
Formerly on the staff of the *Financial Times*, she is now a freelance journalist specialising in City and financial features.

JOE McGRATH
Managing editor of *The Trade and Global Custodian*, he also writes for *The Wall Street Journal, Financial Times* and *The Times*.

COMMERCIAL FEATURE

INNOVATIVE APPROACHES FOR THE CUSTOMER ERA

*Traditional finance business models are being crunched by macro-economic events, but **KPMG** sees opportunities ahead*

The finance industry is developing new operating models, cutting the costs of their legacy businesses and offering services to compete with the innovative forms of financing offered by startups.

Gary Reader, KPMG's global head of insurance, says: "For the last six years, we have observed a battle for the balance sheet and the future will be a battle for the customer. That is at the top of every single organisation's agenda. Although firms have spoken for years about being customer-centric, to a large part, they have not delivered that model."

New models of engaging with customers are erupting on to the street, from startup firms and big technology businesses. Peer-to-peer (P2P) lending services and insurance, low-cost online-only challenger banks and do-it-yourself portfolio management are all fighting for the ground occupied by established business models.

Tech giants like Google and Amazon or "smart-retailers" such as Starbucks are in a position to exploit their massive customer base, with their detailed data on customer behaviour, payments apps, customer loyalty and real-time communication.

This encroachment has taken root. Amazon began lending to US-registered Amazon sellers in 2013, to support inventory purchases for example, and has been expanding into new countries reaching the UK in December 2015. Chinese e-commerce giant Alibaba has successfully become a massive distribution platform for an investment fund in China. They have the capability.

The major advantage that tech firms and indeed smart-retailers have is their established distribution mechanisms and access to high-quality data, with a strong capacity to process that information. They could potentially distribute financial products with limited regulatory burden, and leave the manufacturing and utility banking, with its associated risk, to established, regulated players.

However, finance houses are fighting back by engaging with the opportunity that these models offer. Fintech startups are seeing unparalleled attention from the big finance houses. P2P lending now contains a considerable amount of bank and investment fund capital. Direct competitors to the status quo, such as DIY wealth manager Nutmeg, have seen investment from businesses they intend to disrupt such as Schroders Asset Management.

> The public is hungry for better service and, under new rules, it is easier than ever for retail customers to switch service providers

Banks are prevented from providing many services by regulators who want to see their retail deposit business separated from any investment activity that carries a large risk-reward dynamic. This enforced separation breaks cross-subsidisation of one business cash flow by another, for example, supporting trading with retail deposits.

"Once you get all your UK retail deposits in one spot and you can't subsidise any derivatives trading or long-term lending, then we are going to find out what the consequences of the maturity mismatch are; then we are going to find out how profitable these banks really are and how important the cross-subsidy has been for banking," says Bill Michael, global head of banking and capital markets at KPMG.

Different value chains are being disrupted, with areas like payments seeing interventions from multiple providers such as Apple Pay, World Pay and PayPal. While these all leverage existing bank-based electronic payment models, the system has become a value chain in its own right through the data about payments that is captured, rather than the infrastructure that delivers the payment.

The capital markets element of banking is also seeing disintermediation through the development of all-to-all trading venues that allow non-banks to trade with one another. Pre-trade data information exchanges are evolving, allowing the asset management clients of banks to work out which of their dealers would be best placed to offer them a decent trade. In this context, the winners in the banking community are those that can work with these third parties to offer improved services which include the new functionality on offer.

Banks are not alone in being under threat. Investment managers have been facing criticism by UK authorities over a period of years for being less than transparent about fees and their value. Funds that are actively managed by a portfolio manager, rather than passively carrying the assets that make up an index, are increasingly coming under fire, in some cases for mimicking the performance of an index and in others for underperforming many passive funds. The costs associated with actively managed funds are considerably higher than those of passive funds.

Tom Brown, global head of investment management at KPMG, says: "There is a huge amount of pressure on margins. Investors aren't prepared to pay the sort of fees they had in the past. There is downward pressure on revenue and the cost of running these businesses is ever-increasing."

Consumers are facing an advice gap that will leave many unprepared in their savings and investment requirements and, combined with the gap in the performance of financial institutions and more technology-aware retail and tech institutions, alternatives to the traditional wealth managers are being sought.

"The wealth management industry is buzzing about robo-advisers. These are the automated, digital wealth management services taking the industry by storm. Already big and growing in the US, robo-advisers will become mainstream around the world in the next few years," says Mr Brown.

Startups that offer individuals the opportunity to back test-trading strategies and then run live money on them are effectively giving consumers the potential to operate as hedge funds, including following other peoples' investment strategies. Investors in the real estate market can access various online digital real estate business models such as BrickVest. The extent to which these DIY-type business models will really challenge the existing players remains to be seen. "This is all about cutting out the middle man," notes Mr Brown.

The insurance business is facing disruption from the increased capacity to gather and analyse data in real time. The model of providing a lump of capital to reimburse loss, calculated against historical probability, is changing.

"The trend is very much moving from protection to prevention," says Mr Reader. "How can we stop people being flooded? How can we use wearables to help clients manage their health? How can we better use telematics to reduce accidents among young drivers and reduce premiums too?"

The public is hungry for better service and, under new rules, it is easier than ever for retail customers to switch service providers. As brands such as Apple and Amazon make themselves more conspicuous in the process of making payments and borrowing money, the brand strength of traditional banks, asset managers and insurers is under threat.

"There is recognition within organisations that they need to do something; they need to innovate and often they create a department off to the side," says Mr Reader. "The challenge is a creative solution won't work well if it is set the same sort of performance metrics and requirements that the rest of the organisation runs on – it gets stifled. Innovative solutions require experimentation and failure to get right – the startup mentality of fail quickly and move on."

This opportunity is visible to many financial technology startups and, while several are supported by major finance firms, others position themselves as the antithesis of traditional financial services. Their key strength is the ability to try, fail and try again when building their businesses, at rapid pace and free of the rules that determine how banks operate. Yet they lack an established customer base and capital.

Mr Michael warns that new models will face a challenge at the point where a business model loses investors' money. "Don't forget that the fundamental purpose of financial institutions is to disintermediate and risk manage," he says. "Things like peer-to-peer lending and insurance can easily come unstuck because, when people lose their money, there is an outcry."

The big inhibitor to any new entrant is the regulation which places considerable burdens upon traditional firms, demanding transparency, capital reserves and protection against various risks.

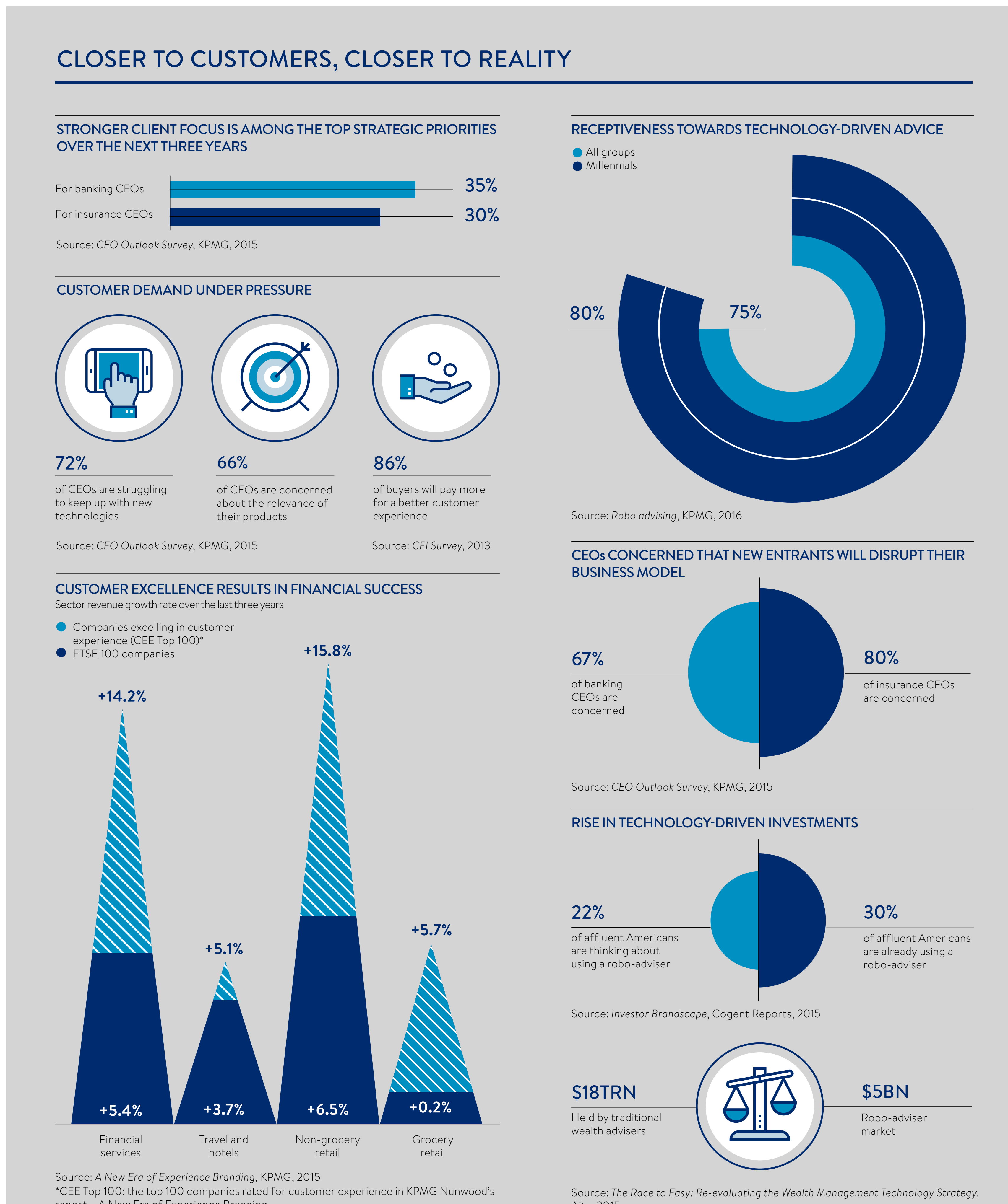
"I am personally sceptical as to whether these big players want to take on the regulatory risk from going into financial services," says Mr Brown. "I wonder whether a more obvious angle would be closer joint ventures and alliances between financial services and these big tech firms. The example of Alibaba is often cited, but there are not many others of scale, which makes me think it's not an obvious thing for big tech companies to go into, certainly not in a very rapid way."

In many other businesses, manufacturing is separated from distribution, the former tending towards commoditisation. Firms from Nestlé to Nike to Apple focus on brand, quality control and design, with third-party factories building the products. Offering a commoditised service as a utility would drive down margins and lower the barrier to entry for challenger firms.

KPMG's Mr Michael concludes: "We are helping clients move from a vertical world to a horizontal world, where you use alliances, joint ventures and third parties. A UK bank, subject to the ring-fencing of its wholesale business, which has a customer that exports to Brazil, will find it can't put that business within its ring-fenced bank and will use a bank in Brazil, but the customer won't see that.

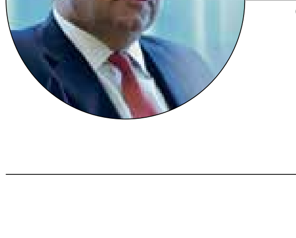
"In the past, banks tried to do most things themselves. The economics of the business model have now fundamentally changed – all the weapons now have to be used to redefine how a financial services business delivers service. Alliances, fintech, shared utility companies, new pricing models – they're all necessary in what is becoming for some an existential battle."

kpmg.com/uk/futurefs



Q&A WITH KPMG's BILL MICHAEL

Transforming capital markets and banking



BILL MICHAEL
Global head of banking and capital markets
KPMG

Q What are the regulatory pressures shaping banks' operating models?

A Financial services firms are morphing. Regulations like the ring-fencing proposals in the UK and intermediate holding company requirements in the US are separating the retail and capital markets parts of the business, and consequently we will see the performance of each side more clearly. A fundamental review of location strategies and businesses is well underway, with the synergies of size and complexity now seriously challenged.

Q Is banks' existing technology an inhibitor to effective service provision?

A Yes, the effect of legacy technology is threefold. Firstly, banks are not investing enough in developing growth strategies as they spend most of their budget on regulation, running the bank and risk mitigation.

Secondly, they are unable to get a single picture of customers and business profitability very easily, and data models have not kept pace with the social media revolution.

Thirdly, their ability to re-engineer their legacy infrastructure is challenged because of its complexity, making the cost of service improvements higher than it ought to be.

Q Do technology firms have a massive advantage in customer engagement over banks in that new world?

A Yes, because their digital design is based on customer engagement and consumption, rather than financial services product processing. Banks have developed systems that work from the product towards the client, for example taking deposits. Big tech firms, "smart-retail" firms, and even fintech startups, are closer to the customer through their use of online and mobile contact.

The other advantage consumer companies have is the better quality of data through the customer life cycle; for example, Ocado know what you had in your basket in your previous shopping, what you typically need in a week and how much you spend.

Q What impact does that have on the industry?

A In terms of consumer banking, it's an opportunity for companies such as Starbucks or Amazon to disintermediate the banks. Their customer relationships are well established as distribution models. This suggests banking product manufacturers could become utilities in the future.

For corporate and commercial banks, the challenge is more likely to originate from companies such as enterprise resource planning (ERP) technology specialists, database giants and SME community accounting technology provider Sage, for instance. These technology specialists are the providers of choice for corporate treasuries and chief financial officers, and see a wider universe of financial data than banks.

In capital markets, where regulation and the cost of capital have had the most profound effect, we see a rapid disruption of traditional markets businesses and the emergence of tech-driven new-entrant companies, such as Citadel Execution Services, a broker that has grown from a hedge fund company, and agile electronic brokers such as Saxo Bank.

In all instances, we see the development of partnerships, possibly of a retail bank and large consumer-facing firm such as Starbucks, or a commercial bank and ERP provider.

Big players can take longer to get moving

Banks may have antiquated IT systems yet they make massive investments in technology innovation – a paradox that can make or break institutions

INNOVATION
DAN BARNES

Financial services firms have been working hard to shed their bulky, old bodies and become slender new businesses. Over the past two years, banks have taken every opportunity to buy, fund or invest in financial technology and fintech startups. Yet no matter how many new ideas they get stuck into, few manage to lose weight.

"To really make innovation happen within a bank you have to have a number of vehicles," explains Sigga Sigurdardottir, head of innovation at Santander UK.

Dirk Klee, chief operating officer at UBS Wealth Management, adds: "In our innovation labs and partnerships we have with universities, we give them ideas and they come up with a concept. Sometimes we fund pilots to develop solutions to business challenges, but the difficult piece is really how to ensure that this actually works in a bank."

Innovative young IT businesses have marked differences with many big banks, whose technology environments are acknowledged as being in need of refreshing. "Antiquated" is the word used by both John Cryan, chief executive officer at Deutsche Bank, speaking of his own bank in 2015 and Sam Woods, director of UK regulator the Prudential Regulation Authority, talking about the UK's biggest banks in 2014. Yet the greatest challenge that banks, insurers and asset managers face is not really one of technology.

"There is no lack of innovation," says Mark Beeston, founder partner of venture capital firm Illuminate Financial Management, an investor in five fintech firms. "Banks in particular have been letting go tens of thousands of domain experts every year for a decade, launched into a market where technology is cheaper than ever to deliver and it is easier than ever to find a technologist who can help you turn your domain expertise into innovative technology."

> Financial institutions have to generate results from their investments in fintech and identify winners from the many potential ideas considered

The fintech firms that the banks have been courting use technology, but are really all about inventing new ideas. The real effect of the systems they develop is usually to either make an existing process more efficient or to invent a new process.

"Innovation changes the way people work by a series of measures; people work around a process which defines who does what in a workflow and all pieces of the chain must be adapted consistently," says Rudi Collin, head of digital transformation for corporate and institutional banking at BNP Paribas. "Sometimes it is one department, other times it is a complex combination of stakeholders, including other banks and infrastructure players like a stock exchange, and you need to get critical mass."

Achieving this critical mass touches upon the real challenge that banks face when they try to innovate; change requires consent, and getting that throughout a big organisation with established practices takes time and considerable motivation. For example, the use of blockchain, the distributed transaction validation model that underpins Bitcoin, is being explored as a very real alternative to the complex transaction networks that currently exist for use with currencies and financial contracts.

"If you want to create digital assets and exchange them effectively, and have them settled using the blockchain, you need at least one other party to work with you, otherwise the chain doesn't concern anything," says Mr Collin.

There are broad cultural differences between the banking world and that of smaller entrepreneurs. One of the ideas frequently cited among startups is "fail fast", the idea of testing ideas, dropping anything that does not work then moving on to a new model. Banks cannot consider their resources as disposable in the same way, observes Mr Klee.

"The tolerance for failure in a bank is low; compare it with big tech firms that bring out a new release on their system every two weeks and where there seems to be a high client tolerance of failures," he says. "I am sure if a bank acted in the same way it wouldn't be solvent. Our proposition is built on trust and we can't break that trust. Our innovation and going out to the broader public by definition can't be at a first-mover."

Risk aversion, a welcome characteristic for the customers who entrust their money to financial firms, can naturally provide a brake on the speed of change. In part this is reflected in the hesitancy to change important but old technology or processes, along with the firm's culture. Yet resistance to change as a proxy for risk management may be missing the point, says Mr Collin.

"We always talk about change with the perception that we move from one stable situation to another," he says. "I don't think that is right; there is no such thing as a stable situation. Innovation should be based on the mindset that if you do not move and change, you die."

When changing a process and technology within an organisation, there is a three-part cycle of innovate, validate, adopt, Mr Beeston explains, and with innovation being firmly supported by investment, the validation and adoption processes need to be assessed.

"The problem is actually validation," he says. "Perhaps all managing directors need to spend an hour a week validating early-stage financial technology, with their views and results sent to the head of innovation within the firm. That is a cultural change from within that keeps innovation as a core part of the business."

> Change requires consent, and getting that throughout a big organisation with established practices takes time and considerable motivation

Financial institutions know they have to modernise; they have to generate results from their investments in fintech and identify winners from the many potential ideas considered.

"How can we ensure that we focus on relevant pieces and not get lost in the jungle of innovation?" asks Mr Klee. "We have defined core themes looking five to ten years out in an increasingly digitalised world. Then we defined which elements of our core value proposition will survive and we consequently make predictions. If we aren't convinced that something will be relevant in five to ten years, then we leave it for now. This in turn allows for healthy cannibalisation of an existing business model as we look to build the future business model."

The ideas that are generated and validated must then be brought into the business so that the teams who will be affected by them can begin to test and ultimately adopt them. There is no single method for this process, but ensuring that existing technology can easily be interfaced with and business units are accessible to the innovators is crucial.

Ms Sigurdardottir says: "We have been creating local innovation teams – I report directly to the UK CEO. We are introducing new processes and new ways of working. We collaborate with the rest of the business, using co-location in order to support working together."

Where a new way of working might disrupt the status quo, it is a mistake for a firm to hide its head in the sand, adds UBS Wealth Management's Mr Klee. If an old business model is going to get consumed by new ways of operating, moving ahead of the pack gives time and space to adapt.

"As the market leader, which we are in wealth management, you should be the first one to challenge your business model; because you will have the power to compensate for potential changes in your revenue streams, you will have the time to build up a successful new model," he says. "But this is not an easy path."

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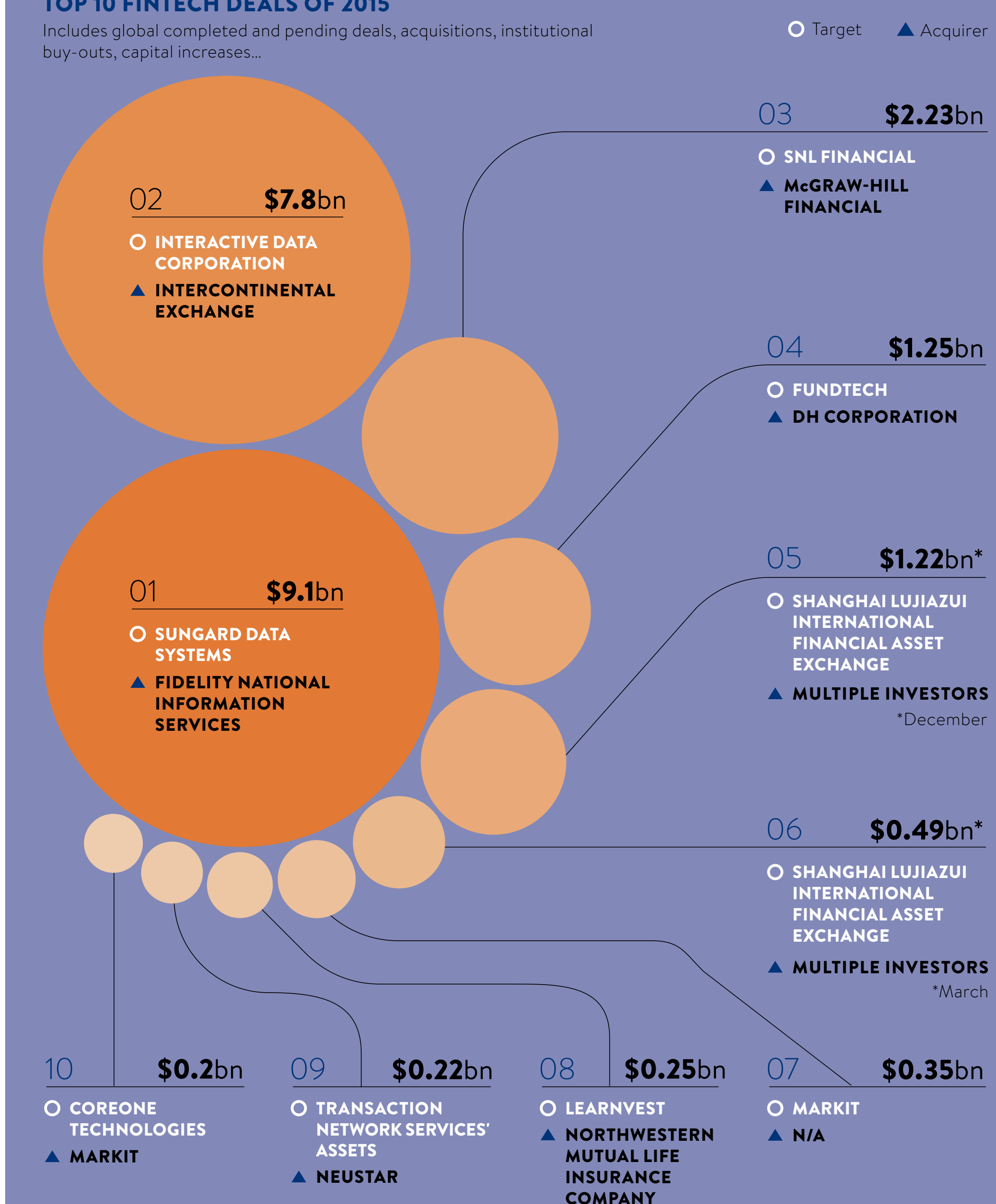
FINANCE BEHIND FINTECH

TOP 10 FINTECH DEALS OF 2015

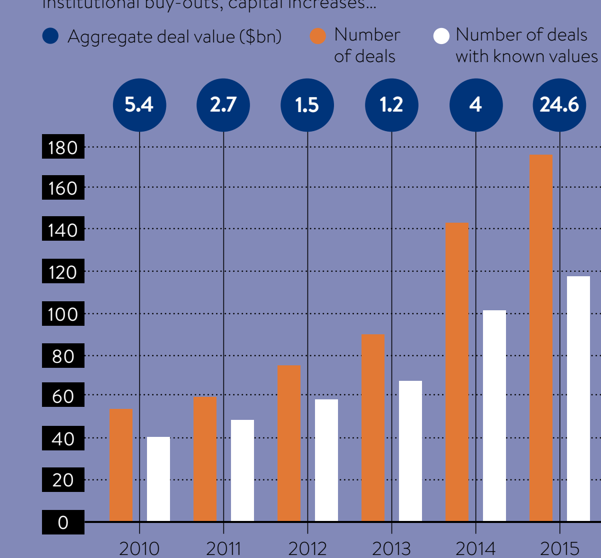
Includes global completed and pending deals, acquisitions, institutional buy-outs, capital increases...



Source: Zephyr, Bureau van Dijk 2016

YEARLY FINTECH DEALS, 2010-2015

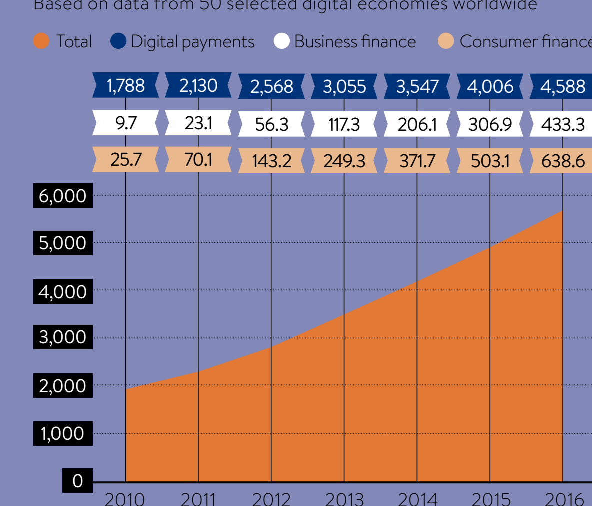
Includes global completed and pending deals, acquisitions, institutional buy-outs, capital increases...



Source: Zephyr, Bureau van Dijk 2016

FINTECH TRANSACTION VALUE ($BN)

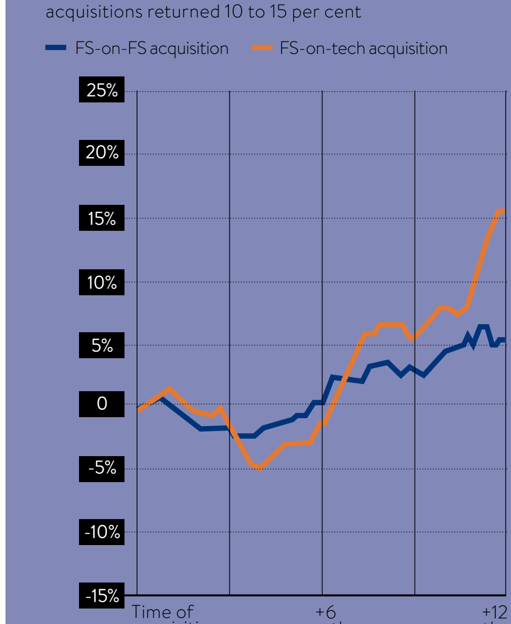
Based on data from 50 selected digital economies worldwide



Source: Statista 2016

SHARE-PRICE PERFORMANCE OF FINANCIAL SERVICES FIRMS FOLLOWING FINTECH AND NON-FINTECH ACQUISITIONS

While FS-on-FS acquisitions achieved 'above market' returns of 4 to 6 per cent after 12 months, FS-on-tech acquisitions returned 10 to 15 per cent

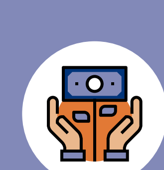


Source: AT Kearney 2014

200% increase in disclosed fintech M&A deal values in 2015 compared with 2014

PayPal was the busiest fintech acquirer of 2015, snapping up Cyactive, Paydiant, Xoom and Modest

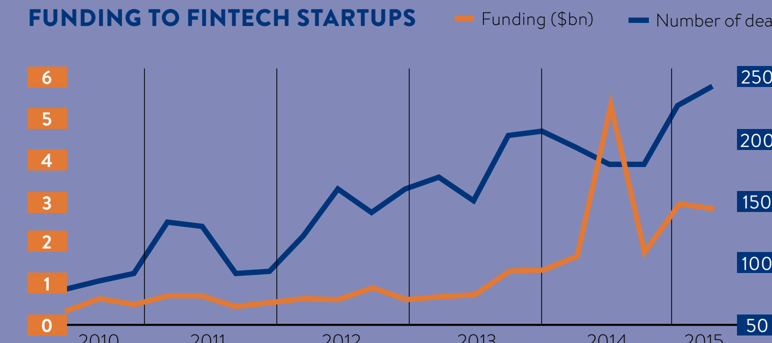
Source: Pivotl



$20bn was recorded in fintech financing in 2015, up 66 per cent from $12 billion in 2014

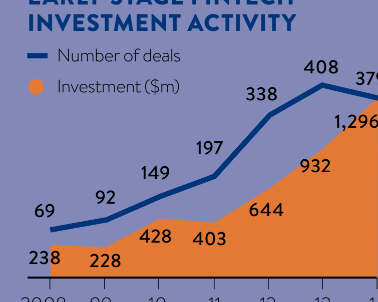
Source: KPMG/H2 Ventures

FUNDING TO FINTECH STARTUPS



Source: CB Insights 2015

EARLY-STAGE FINTECH INVESTMENT ACTIVITY



Source: CB Insights 2015

FINTECH DEALS BY SIX MAJOR GLOBAL BANKS BY YEAR

Wells Fargo, JPMorgan, Citi, Morgan Stanley, Goldman Sachs and Bank of America

Source: CB Insights 2015

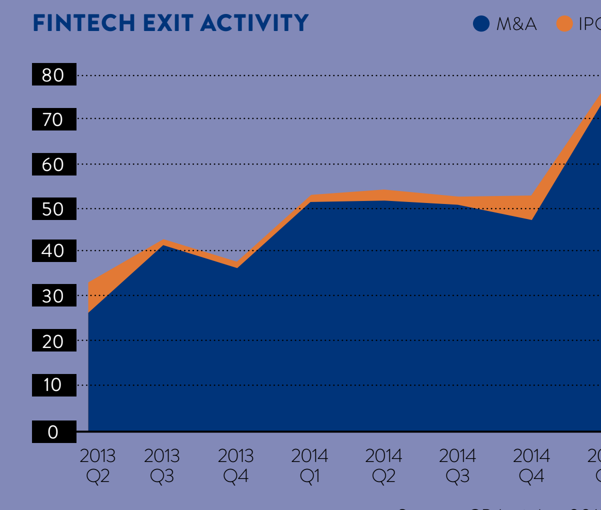
KEY MARKET INDICATORS FOR GLOBAL FINTECH

Based on data from 50 selected digital economies worldwide

	2014	2015	2016	2017	2018	2019	2020	CAGR 2014-2020
Population	4.93bn	4.97bn	5.01bn	5.05bn	5.08bn	5.11bn	5.14bn	0.70%
GDP per capita	$14,068	$13,490	$14,043	$14,706	$15,411	$16,147	$16,957	3.2%
Internet penetration	48.2%	50.6%	52.8%	55.1%	57.4%	59.8%	61.8%	4.2%
Smartphone penetration	32.2%	34.9%	37.8%	41.1%	44.8%	48.9%	53.5%	8.8%
Credit card penetration	20.9%	23.1%	24.9%	26.9%	29.1%	30.5%	32.1%	7.4%
Debit card penetration	47.4%	50.1%	52.8%	54.9%	57.1%	59.3%	61.6%	4.5%
Online banking penetration	31.3%	33.2%	35.4%	37.9%	40.6%	43.5%	46.4%	6.8%
Point-of-sale terminals	61.6m	70.5m	79.2m	87.3m	93.8m	99.3m	104.4m	9.2%
Payment transactions at terminals	199.9bn	224.1bn	250.6bn	279.9bn	313bn	351.3bn	396bn	12.1%

Source: Statista 2016

FINTECH EXIT ACTIVITY



Source: CB Insights 2015

CASE STUDY: HSBC'S 'I TEAM'

HSBC has developed an Innovation Team to address both innovation strategy and investments – with the customer at its centre.

"Our approach to innovation is embracing it in a way that is secure and I think that is unique," says Christophe Chazot, group head of innovation at HSBC. "We have developed our own methodology to approach this. While we could roll out products more quickly, we have a duty of care to fulfil."

The team works with the business, developing a forward-looking view of innovation and identifying important topics. It is also responsible for engaging with internal innovators and startups that have matured sufficiently and can bring expertise and tools to support the strategic themes the team has identified. Usually the firm invests minority stakes of between $5 million and $10 million.

Philippe Henry, head of banking for Continental Europe and Africa at HSBC UK, says: "A lot of fintech startups have developed good concepts, but they will be judged on their capacity to deliver."

When innovating in a given area, the bank pulls together virtual teams of domain experts from within the bank. Innovation labs are an important part of the development process, bringing the bank, clients and third parties together in one room to test ideas.

Anticipating a world in which banks will leverage more external resources than before, defining what is important to the bank is crucial as is developing the skills to achieve it, including from outside banking.

CASE STUDY: AVIVA'S DIGITAL GARAGES

Andrew Brem, chief digital officer at Aviva, believes the firm's digital transformation must be firmly grounded in the real business to be effective.

"There is a real danger in a business like ours that we get seduced by the heat of the west coast of America," he says. "We are part of that, but it is not the whole story."

Aviva's digital team look for ways to capitalise on segments of customers whose needs are not being met, specific needs of new customers and alternative business models in the sector.

There are two "digital garages", one in Singapore and the other in London, which act as microcosms of what happens in the wider digital unit. Within these spaces are a range of digital experts in design, marketing, data analytics and engineering sitting alongside the self-service insurance business Quotemehappy.com in London and the Navigator investment portfolio administration service in Singapore.

"Having a real business in the garages is very important. These are places where we make digital products and services that consumers will want and pay for," says Mr Brem. "We are grounded by sitting next to people who run businesses with hundreds of thousands of customers."

However, while the garages play a big role in inspiring and intriguing the rest of the business, he stresses that a huge amount of innovation happens out in the wider business.

COMMERCIAL FEATURE

BANKING ON A BETTER CUSTOMER EXPERIENCE

***Michael Plimsoll**, industry marketing director at Adobe, urges banks to keep pace with continual advances in technology*

In a really short time, the financial industry has embraced the digital revolution and brought customers willingly along for the journey. As standard, we now expect to be able to manage our money wherever, whenever and however we want.

The huge opportunities for growth in the payments sector means that traditional banks have found themselves in competition not only with innovative fintech startups, but with major technology companies such as Apple and Samsung.

These digital-first businesses really understand customer demand for well-connected, personalised and contextual experiences and, unlike the banks themselves, they are uninhibited by legacy infrastructures. New entrants to the market are therefore credible challengers and they are rapidly turning a monopoly market into an extremely competitive one.

To stay relevant in this new era of choice, where consumers have all the power to choose services which best meet their needs, traditional financial institutions are under increasing pressure to adapt and innovate. The cost of falling behind is huge, with a recent report by KPMG Nunwood forecasting that better customer service could earn the UK's four biggest banks an extra £3.7 billion each in next three years.[1]

With banking by smartphones and tablets now the preferred choice for consumers to manage their finances, according to the British Bankers' Association,[2] a mobile-only approach is the first step for financial services to meet changing customer expectations.

Barclays provides a strong industry example of a traditional bank adapting to remain technologically relevant. With its mobile app, users are able to transfer funds quickly, cancel direct debits or report missing cards from their smartphones.

Apple Watch owners can also now check their balances on their smartwatches. The wearables market is still in its infancy, yet businesses such as Barclays are predicting demand before it exists – a head start which will help to guarantee their position as a mobile banking leader in the future.

Of course, being mobile-enabled is only the beginning of the journey to mobile maturity. With competition heating up, businesses will only stay ahead of the game for as long as they are able to deliver engaging experiences across multiple touchpoints to any consumer who wants it. If that means providing smartwatch-friendly banking apps, or other more innovative and ambitious initiatives to ensure they're staying relevant to their customers, so be it.

> More competition in the financial services sector is a great thing for consumers as it will push the industry to deliver more personalised and contextual experiences

Banks are in a unique position to understand what each of their customers want and when they want it, having built up rich data on their preferences, behaviours and spending habits over a number of years.

They have the ability to optimise and personalise experiences more effectively than any other sector, so customer interactions become easier and more enjoyable. For example, presenting relevant shortcuts to make sure customers are able to find what they're looking for quickly will save time in their busy lives, while relevant offers enabled by location-aware technologies are a nice "value add" to their everyday banking.

Giving customers what they want also offers powerful up-sell opportunities. If a customer opens a current account, are they more likely to sign up for a savings account? Or if they have taken out a new loan, is there a credit card which helps them to earn cash back and repay that loan in a more cost-effective way?

Personalisation does not come without its challenges, however. There are some strict rules around the level of privacy required in the financial services sector, as well as some important considerations around how much personalisation is too much. Customers aren't looking to be managed or viewed as another statistic to be influenced; they want businesses to fully empathise with their experience as empowered consumers.

But relevant personalisation, delivering a coherent and seamless customer experience, is a major issue across the board. A recent report conducted by PAC on behalf of Adobe[3] highlighted that despite customer experience being determined by both back-end functions as well as front-end operations, 57 per cent of respondents in the financial services sector said departments from across their organisation do not collaborate well enough to achieve a holistic customer experience.

Businesses in the sector must work towards implementing a dedicated organisational structure for co-ordinating all customer-related activities. They have to break down data siloes and bring together different parts of the organisation to work jointly on optimising the customer experience.

In such a fast-paced and competitive market, banks must do everything they can to keep up with continual advances in technology. This means being structurally well organised and being agile enough to adapt and innovate.

More competition in the financial services sector is a great thing for consumers as it will push the industry to deliver more personalised and contextual experiences. Those businesses that get on the front foot will improve their relationships with the customer which in turn has a tangible business impact.

[1]bit.ly/1QHH9a4
[2]bit.ly/1XOQWum
[3]adobe.ly/1TGUpMt

THREE STEPS TO OPTIMISE CUSTOMER EXPERIENCE

To optimise customer experience, financial services organisations must always remember to make, manage and measure.

MAKE: First, identify who your key customers are and map out the possible journeys they will make; for example, acquisition, upgrade or self-service. From here, you can start to create the relevant messaging framework and content for each potential customer and their journey.

MANAGE: Use the right technologies so the creative assets you make can be delivered across multiple touchpoints, whether that is online, a mobile app, social media or digital display. By implementing the right content management solution, digital asset management and digital asset delivery solution, you can reduce management overheads by creating smart content that can be reused for different screens and devices, while also ensuring future device and touchpoint capability.

MEASURE: Next, marketers need to understand how, where, when and why their digital experiences are being consumed in order to measure their impact and provide clear understanding of the return on investment from customer experience initiatives. Comprehensive metrics provide actionable insights to improve content and optimisation efforts across channels. Content, assets and customer journeys can be tested, targeted and automated to provide maximum relevance at all points of the customer life cycle, while minimising the need for marketer intervention.

New tech is oiling wheels of trade and commerce

Fast developing technology is enabling shared financial infrastructure which can streamline cross-border payments and facilitate greater international trade

GLOBAL PAYMENTS
JOE McGRATH

Representing 27 per cent of total banking revenues in 2014, global payments are big business. A recent report by Boston Consulting Group estimated that global transaction banking revenues accounted for some $1.1 trillion and are set to break the $2 trillion mark by 2024.

With such large revenues up for grabs, banks and other financial groups are making comprehensive investments in payment technology to increase their international revenue share.

Wim Raymaekers, head of correspondent banking at global payments group SWIFT, says technology is creating less friction in international payments, with seamless, faster transactions and a better customer experience.

He says: "Standardisation and innovation continue to be key focus areas for regulators and important for end-customers in terms of security and service quality."

Nowhere is this more evident than in distributed ledger technology. This type of database technology is perhaps known for its association with digital currencies such as Bitcoin.

At a recent conference of the Luxembourg Fund Industry, speakers discussed how soon it would be before fund managers started using this kind of technology as an alternative to traditional clearing and settlement methods.

Distributed ledger technology offers financial organisations the potential to address challenges around efficiency, trust, transparency and innovation by connecting multiple systems and organisations.

Kirstin Gillon, technical manager at the Institute of Chartered Accountants of England and Wales, says the potential this technology brings is not yet fully understood.

She explains: "This has the potential to create new, shared ledgers across the financial infrastructure, and radically reduce the cost and time of payments. We are still in early stages of development, though, and regulators need to monitor developments to ensure they are robust, scalable and secure."

The emergence of new technologies has brought about a new debate. Established banks say regulations, such as anti-money laundering provisions, can mean the speed of innovation and implementation has to be tempered, while lawyers and fintech lobbyists believe the pace of change could be quicker.

Christian Behaghel, head of global transactions banking at Société Générale, says technology allows the digitalisation and automation of instant payments, settlement and trade, and these innovations are revolutionising the industry.

However, he warns: "Simultaneously, expectations for transparency, both from the regulator and the customer, are increasingly fundamental in these processes. At Société Générale, compliance requirements are a main concern."

Concerns have arisen for numerous reasons. Some new technologies have not yet been proven to the satisfaction of banks' compliance units.

Duncan Ash, senior director at data analytics group Qlik, explains: "One of the dangers presented by the prevalence of simple international payments is the ability for criminal groups to move money around, to launder it or for the purposes of funding terrorism.

"This is made more challenging by the fact that often these payments are not large 'one-off' payments that would be easily detected, but a series of much smaller payments, often from multiple participants in multiple locations."

Meanwhile, Mr Behaghel says the way in which banks interact with new entrants to the market will be an interesting trend to watch.

"Transaction banking is an environment of high investment and, taken in isolation, individual aspects of the value chain are often not profitable. It is unknown whether the new entrants can match the strength of transaction banks in this respect," he says.

"However, there is a greater prospect that transaction banks can collaborate with new entrants, embedding their solutions into the overall cash management and trade offering in order to provide the very best solutions for corporate clients.

> Banks say regulations, such as anti-money laundering provisions, can mean the speed of innovation and implementation has to be tempered

"Partnerships with non-banks have the potential to deliver faster and more cost-effective services to some parts of the value chain."

This may well be the case, but lobbyist groups for new market entrants say this "collaboration" isn't happening quickly enough.

Tony Craddock, director general of the Emerging Payments Association, says both businesses and consumers that want to make international payments are being starved of alternatives.

He says: "New entrants, often with more flexible services, better technology and competitive pricing, are struggling to compete because they cannot use a simple trading bank account.

"Citing 'high risks', banks are effectively hiding behind global anti-money laundering requirements to protect a high-margin business, which is being insulated from competition by the lack of a regulatory playing field.

"Ironically, these new entrants are better equipped to tackle financial crime because their technology and organisational structure can quickly combat new threats."

Despite this criticism, banks are recognising the value in these new technologies.

Catherine Moore, president and managing director of J.P. Morgan Commerce Solutions, Europe, says while it is important to bring down the costs for transferring payments internationally, it is of equal importance that anti-money laundering initiatives are in place to stop unlawful transactions.

She adds: "Technology can make managing international payments, multiple currencies and online fraud easier. However, it's still a complex and demanding task."

Recent years have given rise to a smattering of new launches for both retail and institutional payments, but like any growth market, there have been numerous new launches which have quietly died a death.

The success stories have been big, however, and range from fund-transfer systems to payment confirmations and innovations in automated reconciliation.

Matteo Stefanel of Apis Partners explains: "Globally, we are moving towards ubiquity of real-time, 24/7 payments infrastructure, such as the Faster Payments system in the UK and IMPS in India.

"Internationally, these faster and more efficient 'local' hubs are being connected by innovative cross-border payments companies such as Earthport, which disintermediate existing international payment systems.

"This 'hub-and-spoke' infrastructure model is similar to how international calls are made today. Importantly, this also means that international flows can be locally netted, resulting in lower-cost cross-border transfers for businesses."

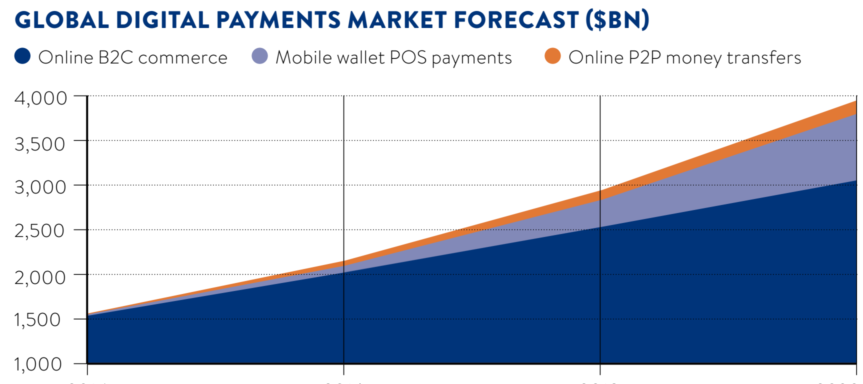
Then there are the peer-to-peer foreign exchange (FX) platforms, such as TransferWise and CurrencyFair, which have had a hand in improving FX rates and faster payments by matching buyers and sellers of currency.

In addition, international payment gateways, such as Adyen, mean that merchants can take both mobile and online payments in a speedier fashion.

Matthew Bryant at private equity group Bain Capital says: "Markets are converging and convenience is becoming incredibly important to all of us. Merchants value the opportunity to pick up additional services that are genuinely helpful to their business, for example short-term lending quickly underwritten on the back of their card takings, and which integrate additional business processes or services with the device.

"Big data has been overhyped for a long time, but we're starting to see innovative players developing platforms where there are real-life use cases demonstrating that data-driven insights can really add value to a merchant's business."

GLOBAL DIGITAL PAYMENTS MARKET FORECAST ($BN)



Source: Statista 2015

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CASE STUDY: CHINA INTERNATIONAL PAYMENT SYSTEM

Global changes to international payments have come about as a result of China's emerging global presence as an economic superpower. As Chinese companies have become increasingly important in requisitioning of goods and services from other countries, payment systems have had to evolve to accommodate the new reality.

Just over a decade ago, the Chinese renminbi was unpegged from the dollar enabling it to be traded as an unrestricted currency for the first time. Fast forward to November 2015 and the China International Payment System (CIPS) went live with nineteen banks and nine foreign institutions connected directly to the new system. It means they can clear cross-border renminbi payments without having to use an offshore clearing centre.

This is significant, says Andy Brown, managing director of Equiniti International Payments. He explains: "It is likely that this will become the international payment delivery of choice for anyone wishing to make payments into China in due course. It is vital that businesses understand the importance of being able to deliver payments, particularly salary."

However, Michelle Chan, a partner at international law firm Bird & Bird, says it is still early days for the new system. "Whether the new CIPS will change the landscape for international payments remains to be seen," she says. "We understand that only a limited number of 'foreign' financial institutions have participated in the new system, but most of them appear to continue to use the offshore clearing centres. The technology cost involved in joining the CIPS has certainly been seen as one of the barriers as to why CIPS may not appear as popular as it could have been."

Knowing how to bridge the generation gap

Digital financial services may appeal to all ages but for different reasons so providers are tailoring varied offerings to a wide range of customers

CUSTOMER EXPERIENCE
CLARE GASCOIGNE

No one would dispute the seismic revolution that is taking place in financial services. But with plenty of customers still more comfortable with the type of banking service provided by Mr Mainwaring of *Dad's Army*, can technology help the sector cope with the very different needs of different generations?

"It's clear that customers want high-quality, personalised, digital interaction; the real challenge is how the banks can get there and maintain profitability over the next five years," says Jeremy Anderson, global head of financial services at KPMG.

That customer expectations are changing as a result of changing technology is clear. Research from Temenos, a financial services software provider, found that 72 per cent of millennials, born between the early-1980s and early-2000s and who by 2020 will make up more than 50 per cent of the workforce, are active users of mobile banking.

One problem for the sector is that although digital has been embraced by the younger generation, it is older people, with more savings and investments, who are more "profitable". So the focus has moved from the technology to education and marketing; getting older people to trust and embrace digital.

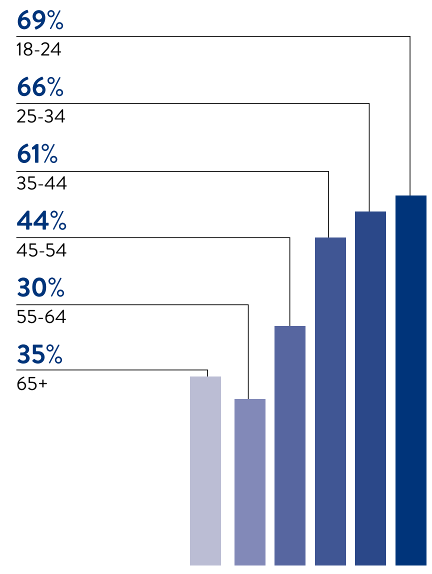
Barclays, for example, has been promoting its Digital Eagles scheme, offering free technology advice that is not just related to financial products. The bank has recognised that the more confident and comfortable people are using technology across all aspects of their lives, the more likely they are to use it in their financial life.

"We're helping to boost the skills and confidence needed to make the most of the opportunities this new digital era holds," says Ashok Vaswani, chief executive of Barclays personal and corporate banking. "There's no one-size-fits-all approach."

Getty Images

SHARE OF UK SMARTPHONE OWNERS WHO USE MOBILE BANKING APPS

BY AGE

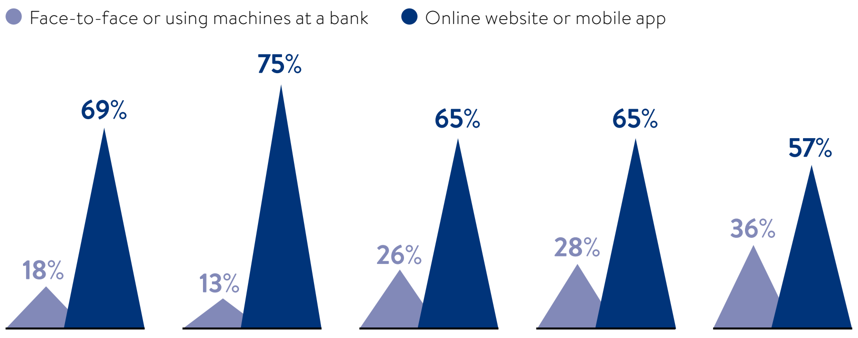


18-24	69%
25-34	66%
35-44	61%
45-54	44%
55-64	30%
65+	35%

Source: TSYS 2015

PREFERRED METHOD OF BANKING IN THE UK

BY AGE



	Face-to-face or using machines at a bank	Online website or mobile app
18-24	18%	69%
25-34	13%	75%
35-44	26%	65%
45-54	28%	65%
55+	36%	57%

Source: Genpact 2014

Certainly the rise of silver surfers, who have demonstrated their ability to use digital in the social space, gives the lie to the idea that only those under 30 and living in Hoxton can use mobile banking.

Segmenting the financial services customer base by age may not be a useful approach, according to Lawrence Wintermeyer, chief executive of Innovate Finance, a not-for-profit organisation serving the financial technology community. "The change in behaviour isn't limited by generations," he says. "My 70-year-old mother-in-law is tech-enabled. It has more to do with economics than age."

He believes the digital revolution can be accessed by anyone of any age, particularly as the cost of holding a supercomputer in your hand is falling year by year, and that technology is changing behaviour.

Travers Clarke-Walker, chief marketing officer of the international division at Fiserv, a technology company focused on the financial services sector, agrees. "Millennials will happily have four, five, six payment apps on their phones," he says. "Consumers now will go where the service is most easily and robustly provided, which leads to a fragmentation of access points for the provider."

According to research from Temenos, the likelihood of millennials using the same wealth manager as their forebears is only about 10 per cent. That lack of loyalty may pose more of a problem for financial services than whether or not the over-50s use mobile banking.

"The behaviour and expectations of millennials is so different to baby boomers," says KPMG's Mr Anderson. "They are not interested in established and trusted brands, but more in recommendations from friends or even people they don't know."

> The rise of silver surfers gives the lie to the idea that only those under 30 and living in Hoxton can use mobile banking

A key issue for the sector is the ability to join up the different ways we access services. Lots of basic inquiries are directional and broad ranging; for instance, how much could I borrow to buy a house? A customer may go online to find that out, but then go into a branch and have to repeat all the details. All financial service providers are trying to have a joined-up conversation across multiple touchpoints.

In fact, younger people may be more likely to use the high street branch network than older; it's not that they aren't using digital channels, but they value face-to-face contact, depending on the product. If it's the first time they have used a credit card or taken out a mortgage, they want the reassurance of speaking to someone.

Of course, technology can help with that; for example, Nationwide, the building society, has used a kind of video conferencing to put remote mortgage advisers into its branches. According to Cisco, Nationwide's technology partner in this venture, it resulted in double-digit improvement in customer net satisfaction and two-thirds improvement in new mortgage business.

Mr Clarke-Walker says: "Some products require a degree of intervention. You have to ask how rich an experience it is to transact on a mobile phone; if it's a particularly complicated offering or the individual needs a degree of assurance, it's more appropriate to pass the query on to a human."

Financial services can no longer rely on a monolithic sector where every company provides the same, not very good service; the sector needs to take lessons from other digital companies that have a laser-like focus on what the customer wants.

"Look at Vodafone's mpay [one of the first mobile phone payment services]," says Mr Wintermeyer. "Remittance is one of the biggest growing areas in financial services and is broadly focused on foreign workers getting money back home. Vodafone focused on what the customer wanted and worked out a business that got the fees down to nothing by taking a cut from the currency exchange instead of charging the customer a fee."

It is not just the younger generations, but all of us who are using technology to change the way we use financial services.

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TECH IMPACT OF UK PENSION REFORMS

Shutterstock

Last year saw one of the biggest shake-ups of UK pensions for many years. At last, those who had conscientiously put money aside into a pension scheme were able, aged 55, to access as much or as little of their pension pot as they liked.

A bonus for Lamborghini dealerships, said many doubters. But it is more likely to mean a bonus for financial advisers, as consumers get to grips with complex and difficult decisions. Those advisers without the technology to help – perhaps by demonstrating different scenarios – will lose out quickly.

One of the hardest aspects for the consumer is that of collating pensions from different workplaces. Increasing job mobility means that, on average, you could end up with 11 different pension pots, according to the Department for Work and Pensions. Collecting, managing and possibly merging these pots is currently a nightmarish job, but one where technology could make a significant difference.

Companies too are demanding far more real-time analysis from their pensions advisers. Technology can be of real value here and predictive analytics much in demand. Also, the advent of auto-enrolment will see a tech-savvy generation coming into pension scheme membership. Such individuals are likely to require much greater access to information and analytics.

Future gazing to when cash doesn’t exist

What the future holds for financial services may be the stuff of present-day science fiction – or something far more revolutionary

FUTURE OF FINANCE
STEPHEN ARMSTRONG

If you’ve watched a sci-fi movie in the last 30 years, you’ll know what the future of money is – because no one ever pays for anything. From Arnold Schwarzenegger’s cab ride in *Total Recall* to Luke Skywalker getting a drink at a scary spaceport bar, nary a shekel changes hands. Which isn’t, it turns out, lazy scriptwriting – it really is the future of seamless payments.

Obsessed with removing the distressing, time-consuming and purchase-squashing horror of pulling a £10 note from your pocket, a host of digital startups, tech labs and major banks are looking to revolutionise every aspect of anteing up. They are turning to biometrics, data, artificial intelligence (AI) and even bio-implants to ensure you can leave your house, step into a driverless taxi and grab breakfast from your usual coffee shop without even thinking about payments. Indeed, the main reason for interacting with the smartphone or wearable banking app will be to manage your personal portfolio.

So dramatic are the anticipated changes that Francisco Gonzales, chief executive of Spanish banking giant BBVA, predicts the next 20 years will see an entirely new financial ecosystem being created, going from 20,000 analogue banks today worldwide to no more than several dozen digital banks. He predicts that diverse niche businesses will exist, but will be tied into the digital banks for the so-called banking rails that underpin transactions.

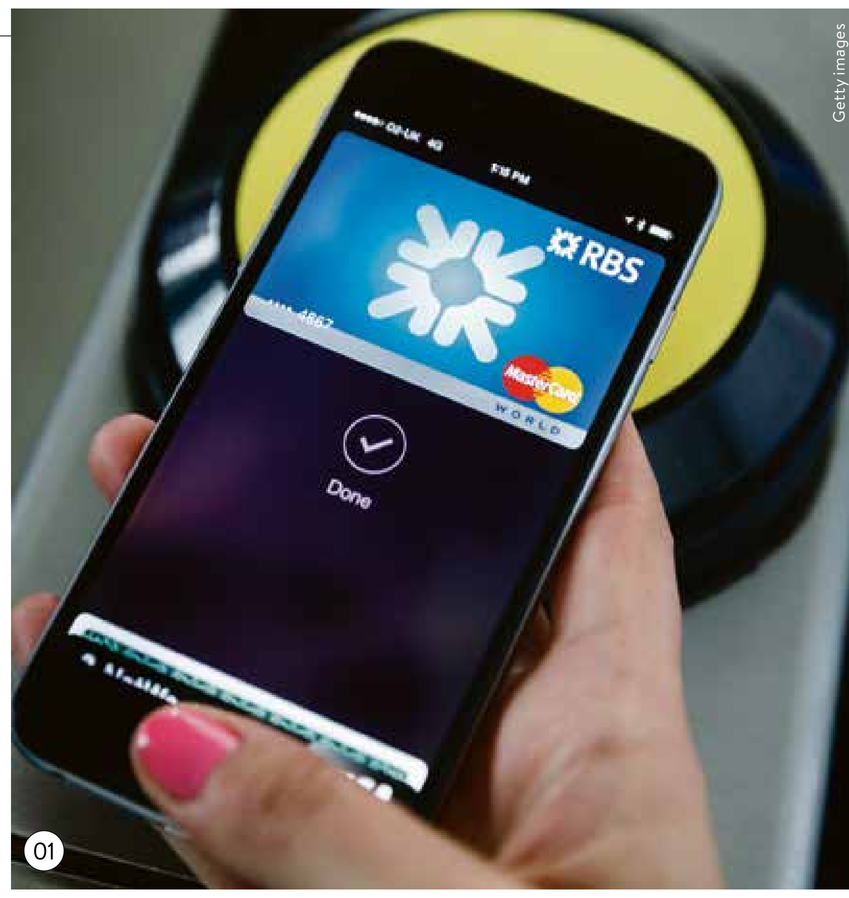
Of course, nothing is as simple as this. For a start, cash is stubborn. The working man’s tax haven, hard to track and easy to spend, is outperforming predictions of its demise. In 2015 it was still the most popular form of payment, accounting for 48 per cent of all transactions, compared with 24 per cent for debit cards and 10 per cent for direct debit. 2015 was, however, the first year cash slipped below 50 per cent of all transactions. With just 34 per cent of payments expected to be cash by 2024, what will take its place?

Jesse McWaters, project lead of disruptive innovation in financial services at the World Economic Forum, predicts three key systemic changes: the triumph of the “default card”, the card that consumers use in online and mobile payments; expecting this to be a debit card, he predicts the death of the credit card; and he expects digital currency systems to modernise the payments infrastructure.

What this doesn’t account for is the surge in innovation in financial technology (fintech), with challenger banks and new service providers hoping to use predictive technology and AI to overhaul lending, and introduce sweeping changes.

“The biggest change we’ve seen recently is that for the first time in 350 years, banks are interested in their customers’ experience – customers used to have to go to the bank, now the bank has to come to them,” explains Phil Cantor, iGTB’s head of digital. “In time, technology will help restructure the way banks work with customers completely. Right now, if I need a loan to pay an overseas supplier, that’s at least two departments at my bank. What customers need is a bank that can keep them liquid so they can order money into an account when they need it and pay it back when they have it.”

Mr Cantor points to Square, the payments platform now offering loans to its merchants without them even requesting one, basing the loan offering on the transaction volume it sees the merchant processing and repayment directly out of the transaction stream.



01
Apple Pay contactless technology launched in the UK in July 2015

02
Barclays Biometric Reader for customer authentication

Moving corporate banking closer to this fluid lending, iGTB recently launched sanctions screening, an AI which offers a natural-language contextual search of social media to identify high-risk clients, along with a wearables extension of its corporate banking digital enterprise platform CBX, offering the complete spectrum of transaction banking and aimed initially at the Apple Watch.

This kind of broad interface offers trusted banks a chance to move from traditional bank to bona fide consumer brands, argues Andy Masters, head of savings and wealth at KPMG. In the short term he envisages a near future where mainstream financial services brands such as Barclays would use technology that already exists to bring together all their pension, savings, borrowing and cash account values from any provider on the same smartphone app. Slightly further out, he predicts machine-driven financial planning advice, which will view assets and liabilities, understand a customer’s risk attitude, and recommend strategies in real time and prompt customer action.

> “The blockchain is essentially a huge multi-user digital ledger that, at the moment, can’t be erased or altered and records every transaction permanently”

“There are data privacy concerns, of course, but if you’d suggested ten years ago that private companies would issue people with a device that measures their health on a minute-by-minute basis, there would have been a big brother outcry,” says Mr Masters. “Then along came the likes of Fitbit. It needs an under-the-radar approach like the Fitbit, but banks could become the mobile equivalent of the old AOL home pages.”

Barclays bPay wristbands and its imitators are hoping to become the Fitbit of money, taking advantage of contactless to conduct small transactions without needing a wallet. Taking contactless far afield, Paul Makin, head of digital financial services and financial inclusion at Consult Hyperion, shows how mobile and contactless can work even in the difficult environment of a refugee camp.

Consult Hyperion is working with the Department for International Development on payments for refugees in Syria. Charity field workers carry toughened Android tablets that sync with credit card-sized payment cards on to which charities can send weekly payments – payments that used to be made in bundles of cash carried around war zones in vulnerable trucks. In a wi-fi area these tablets upload and download information so that, when taken into an unconnected camp, cards can be topped up and spending recorded. The charity can then reimburse merchants.

“Financial futures really are about financial inclusion or they won’t work,” Mr Makin argues. “Right now, for instance, Apple is leading the charge on biometrics with its fingerprint lock on the iPhone. Actually fingerprints are only really useful for young office workers. If you’re a manual worker, if you’re really dehydrated, if you smoke or if you’re over 50, fingerprints are far less reliable.”

Ian Pearson, futurologist at forecasting consultancy Futurizon, suggests fingerprints with 64-bit codes imprinted may help. He’s also keen on gesture recognition or heartbeat monitoring. “It needs to be fluid and unfakeable, which is tricky to guarantee,” he says.

One solution, Mr Pearson suggests, is quantum money, using bleeding-edge quantum computers to issue currency that can’t be copied, which would make it possible for any of us to create our own payment system, using anything from time to bandwidth to supply value. There’s also the much misunderstood blockchain – the technology behind the infamous Bitcoin – which many see as the future of both payments and identity.

The blockchain is essentially a huge multi-user digital ledger that, at the moment, can’t be erased or altered and records every transaction permanently. Many banks, including BNY Mellon, are exploring ways in which the properties of the blockchain can be leveraged, explains Dominic Broom, BNY Mellon’s head of treasury services in Europe, the Middle East and Africa. “The blockchain concept can be applied to any digital asset, such as security, bonds, loans and collateral, and could therefore be used in a number of different areas,” he argues.

Brian Forde, MIT Media Lab director of digital currency, goes further, predicting a new capitalist revolution. “Cryptocurrencies and blockchain are the open protocol of payments, the SMTP [simple mail transfer protocol] of money,” he says. “People talk about Uber and Airbnb as disruptive, but they’re intermediaries just like the incumbents. The blockchain actually disrupts the disruptors.

“Capitalism took off in countries such as the US with most small-business owners borrowing against their home. Where people don’t have a formal property title, like in Egypt, all this capital is tied up. If you have a property title put on the blockchain, even if there is then a government that no longer respects the title, it’s on the blockchain – the government can’t say you never owned it. In Egypt, that unlocks $400 million in capital.”

Which may sound a little bit like science fiction, but at least it suggests there’s someone paying for something.

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CHALLENGER BANKS

Francisco Gonzales, chief executive of Spanish banking giant BBVA, may be predicting that 20,000 old-school banks will dwindle to several dozen digital banks in the next 20 years, but the evidence from the burgeoning challenger bank scene suggests otherwise.

Born out of the financial crisis of almost ten years ago, challenger banks range from the relatively traditional Virgin Money, which purchased Northern Rock’s viable assets, to punchy startups such as Tandem, the UK’s first mainly mobile bank. Although undermined by recent reports that five of the biggest of the roughly 40 challengers were being run by former Royal Bank of Scotland executives, business has boomed. Aldermore and Shawbrook Bank have lent more than £10 billion combined, and both have floated successfully.

Many are primarily lending vehicles. Shawbrook and Aldermore are specialist savings and lending banks, though some, such as Metro Bank and OakNorth Bank offer high street checking accounts. And it’s not just UK-based banks that Brits are choosing. Berlin-based Number26 is a Europewide mobile-only full service bank, with a huge reach among UK millennials.

“Normally you have to sign up to a bank account on paper – with ours you can do it on a mobile phone in around four minutes,” explains co-founder Valentin Stalf. “Our customers log in to our app at least every two days so we can constantly react to what customers need.”

OakNorth’s chief executive Rishi Khosla isn’t sure technology is crucial to good challenger banks and pitches human contact over the algorithm. “We always make sure a real person decides on any loan taking all factors into consideration,” he says. OakNorth’s lending is largely to smaller businesses, a sector that has struggled to get loans from established banks since the 2008 crash.

The drop in lending by UK banks and building societies has prompted the growth of crowdfunding and peer-to-peer lending, with almost $80 billion raised worldwide, according to data from industry watchers Preqin. The sums are still relatively small in the UK; one survey by online marketplace Funding Options found that just 18 per cent of loans to UK small businesses were supplied by crowdfunding, peer-to-peer lending and rich individuals.

“Peer-to-peer lending is looking increasingly like a bubble – there are some 1,800 platforms around the world,” warns Kamel Alzarka, chairman of the insurgent Falcon Group, which lends to mid-cap companies, a sector that has struggled with banking support. “At the same time banks are lending less – challengers will only grow.”

MILLENNIALS AND EXPECTATIONS OF FUTURE BANKING

Source: KPMG 2015

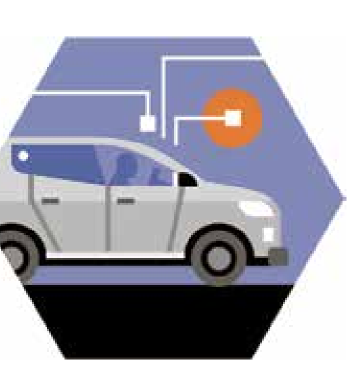
- Millennials believe that in a few years they will not need ‘traditional banks’ at all
- Their needs will be serviced by specialist digital app providers
- They want a bank that understands how banking can be delivered through digital, mobile technology
- They want banking arrangements that support their lifestyle rather than simply providing transaction services
- Traditional banks have moved online, but none have yet developed the user experience/product quality to meet millennials’ needs

Learning tech lessons pays

The financial services industry may have a thing or two to learn from technological innovations in other sectors

LEARNING CURVE
CLARE GASCOIGNE

01 TRANSPORT



Uber, the on-demand taxi service, has been such a game-changer the very name has entered the language. The “uberisation” of financial services is a concept on everyone’s lips, but what does it really mean?

The question many people ask is why Uber has been such a success. There are lots of good points to Uber: the user interface is simple; value is being delivered; you feel engaged on a one-to-one basis; you are always kept informed; you can provide feedback. It all amounts to a seamless customer journey.

The key lesson here is to concentrate on the how rather than the product. What Uber does is an enormous amount of analysis about how the customer engages. It maps out that journey in forensic detail in order to provide exactly what the customer wants in the way the customer wants. Get the journey right and the product purchase will follow.

02 SOCIAL MEDIA

One of the problems the financial services sector has is that it is not selling a massively sexy product – let’s face it, who wouldn’t rather watch a cute panda clip than discuss pensions?

So finding a way to engage the customer is critical to success. Travers Clarke-Walker, chief marketing officer of the international division of Fiserv, believes visual imagery is the way to go.

“Think about how you use Facebook,” he says. “You flick up and down until you see a picture that interests you. The really successful digital businesses are visually engaging.”

He argues that imagery is what’s needed to alter the dynamics in financial services. Make the sector look as interesting and stimulating as Spotify or Twitter; use logos to make it easier to search; create images that prompt human-to-digital interaction. Once customers are interested, they can be led beyond the simple transactional operations that are how most of us use mobile financial services.

03 HEALTHCARE

Everyone loves a gadget and the healthcare sector has embraced the use of wearable technology – 10 per cent of healthcare companies are investing in wearables, according to a PwC tech trends report published last year. From fitness bands that monitor everything from heart rates to exercise to clothing that can keep you cool when you sweat, technology can not only make our lives easier, but collate data and prompt us improve our lives.

This kind of wearable, contactless technology is making its way into financial services. Last year Barclays launched bPay, a wristband that looks a lot like the Fitbit that offers exercising data and motivation to many people.

Currently bPay is simply another way of making a contactless payment, but there’s no reason why such a product shouldn’t prompt us to think about our financial goals on a day-to-day basis by offering data analysis about our spending.

04 GAMIFICATION

In today’s fast-moving and interactive world, it can be hard getting us to think long term. Financial services suffer from an image problem – few of us really look forward to thinking clearly about money.

So the sector is starting to use gamification – the concept of applying elements of game playing, whether through scoring points or competing with others – as a means of motivating us.

In some cases it is used as a marketing tool. Back in 2009, Barclays’ *Waterside Extreme* game, based on a giant waterslide advert, was an early hit. It may be used to change behaviour, perhaps by offering points that can be exchanged for non-financial products every time you use the digital, rather than the high street, bank.

But it is also being used more directly. Aviva’s Drive app, which rates your driving on a score out of ten, is free to use and could save you money on your car insurance.

05 PHARMACEUTICALS

The pharmaceutical industry used to be all about the big hitters. The giant behemoths of the drugs world spent years and millions on developing blockbuster medicines that would be jealously guarded for decades.

But the past few years have seen a sea change in the industry. Not only has the emphasis shifted from cure to prevention, but there has been a huge rise in the number of small, agile and well-focused startups. No longer can the big companies get away with setting their own prices. A customer-base that is more vocal and more knowledgeable is demanding an improved service based on outcomes rather than products.

Financial services are following the same path. Agile tech startups are disrupting the marketplace with cheaper and better options, while customers are voting with their feet and refusing to accept poor service or poor outcomes. The financial services sector will have to learn the art of partnership.

OPINION COLUMN

Towards collaborative disruption: fortune favours the bold

A wave of innovation is sweeping across Europe as financial technology startups begin to collaborate with established companies to shake up the sector

PAT PATEL

Content director
Money20/20 Europe

The financial services sector is going through unprecedented change, its commercial models profoundly impacted by the proliferation of technology and the changing expectations of its users. In addition, the barriers to entry are reducing due to regulatory initiatives – the Payment Services Directive II, Single Euro Payments Area and Single Digital Market Strategy to name a few – and this is creating a plethora of opportunities.

When this is combined with the fallout from the financial crisis, which has created an increased level of complexity for the incumbents, it's clear to see that the financial services market is in a state of flux never before seen in the sector.

Opportunities for startups within financial services have never been greater, especially in the application of new technologies to improve upon existing services and models, and to overcome legacy challenges, whether technology, processes or people. Across Europe, a number of initiatives have sprung up to drive the development of startups within the sector, many of which have taken inspiration from the success achieved in Silicon Valley.

While Silicon Valley is the most famous technology hub in the world, it has taken decades to achieve this status. When the computer chip industry was emerging in the mid-1950s, there were no venture capital investors in the area. The main university in the vicinity, Stanford, did not produce any research on computer chip components and the supply of local employees qualified to work with these high-tech devices was almost non-existent.

It all started when a small group of ambitious entrepreneurs, the founders of Fairchild Semiconductors, created the first successful chip company in the Bay Area. Co-founder Gordon Moor later claimed: "Every time we came up with a new idea, we spawned two or three companies trying to exploit it."

Investment in the area has grown enormously over the years, as has collaboration between established companies, universities and the local ecosystem. Support from established entrepreneurs has played a key role in developing the "fail fast, fail often" mentality, which has created a risk-taking culture. A great deal of this success has been achieved without government support.

In contrast, The Monetary Authority of Singapore (MAS), having committed S$225 million over the coming five years under its Financial Sector Technology and Innovation scheme, is developing a regulatory sandbox to provide a controlled experiment space for financial technology (fintech) startups. There are similarities with the UK Financial Conduct Authority's "regulatory sandbox" initiative, which will allow businesses to test out new financial products and services without incurring all the normal regulatory consequences of engaging in those activities.

The MAS initiative has a slightly different goal as the intention of its sandbox is to create a safe space for innovation within which the consequences of failure can be contained. It will allow fintech startups to test their products in a live environment and to demonstrate a working concept to investors. MAS will also provide guidance and support to help startups develop their propositions, and navigate the barriers to market entry.

In London, initiatives such as Level39, Silicon Roundabout and Tech City have become the focal point for fintech companies. Level39 in particular continues to attract fintech outfits from around the world, with more than 200 member companies that are capitalising on London's potential as a beachhead into mainland Europe, while also leveraging the City's strong financial services heritage.

> The time of collaborative disruption is beginning as established financial services companies collaborate with startups to accelerate the pace of innovation

Many of the incumbent financial services institutions have created a variety of different investment vehicles and innovation labs within the City, which is boosting activity. One such company is UBS, a leading wealth management institution, that has set up an innovation lab to explore financial solutions based on new technologies, such as blockchain, which many industry insiders predict will revolutionise the sector. The City is now experiencing a growth in companies developing solutions to tackle regulatory and compliance issues, platform and API-driven propositions.

In Denmark, the strategic vision for Copenhagen Fintech Innovation and Research this year is to see the city grow as a recognised Nordic fintech hub bringing together existing players, universities and startups. Again, one of the key areas of growth is the application of blockchain technologies to solve industry problems. While corporates are trying to figure out how to improve their solutions by rebuilding on blockchain technology, but are hampered by legacy processes and systems, agile startups launching in this space are seizing the day.

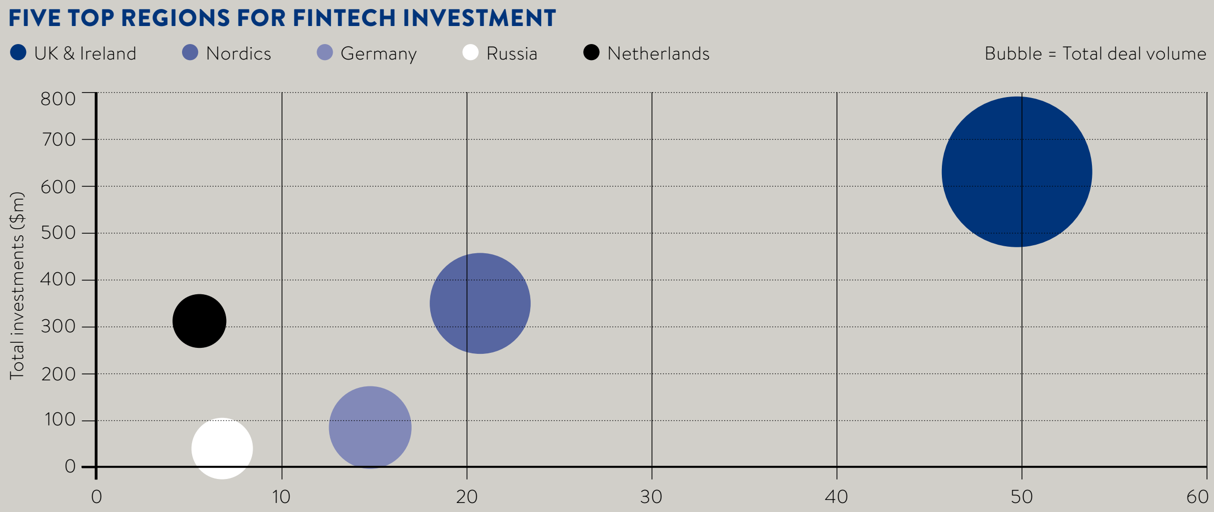
Denmark has a special tradition for co-operation across sectors and this has influenced the financial services sector. Recent examples of collaboration between incumbents and fintechs are Danske Bank's collaboration with Trifork in the development of Mobile Pay, and Nordea's collaboration with Shopbox to develop small-business banking solutions.

The Frankfurt-based initiative main incubator continues to reach its goal by identifying and capitalising on fintech trends to help shape the sector. This involved attracting investments for innovative fintech companies, and supporting them to grow stronger to strengthen Germany's and continental Europe's financial services sector. To date, main incubator has invested in four fintech companies, with further deals in the pipeline. It has started to build companies to help kick-start the local ecosystem and has successfully established the monthly Between the Towers event to create a dialogue between entrepreneurs and corporates, and a platform where ideas can be shared and developed.

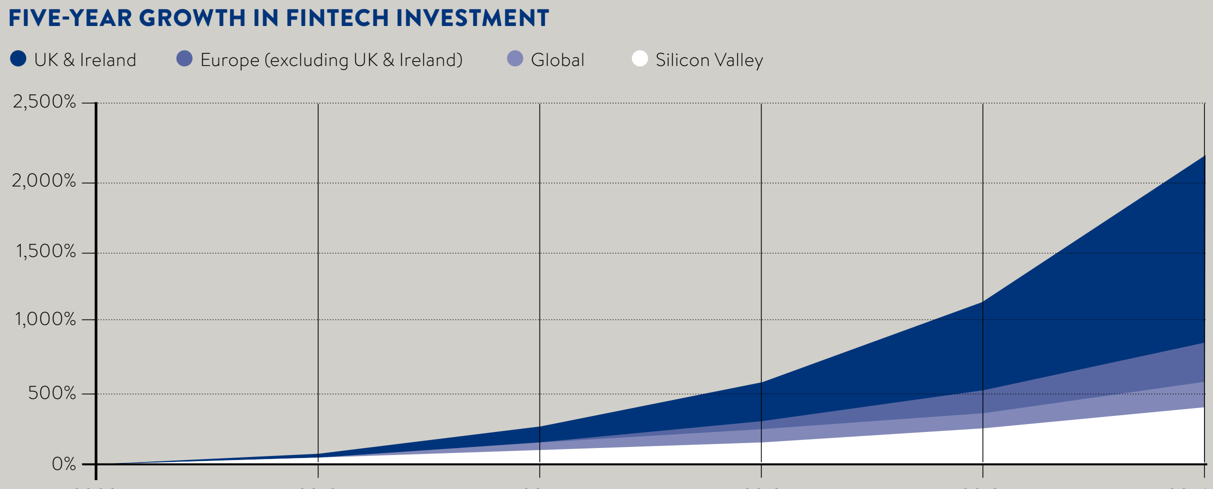
Within 18 months, Holland Fintech has attracted more than 130 member companies and connected over 3,000 people in the broader sector. Collaboration is a key pillar of its strategy as there is an active focus to improve co-operation with numerous stakeholders such as government, regulators, other hubs and fintech companies around the world. It has witnessed a number of corporates experimenting in a variety of different ways and these collaborations are beginning to achieve some success, for example Rabobank with MyOrder and Facturis, ABN AMRO with Tink, or ING with Kabbage and R3 CEV. The insurance sector is a focus within the broader financial services space, and is being fuelled by investments and a greater appetite for experimentation and collaboration.

This wave of initiatives across Europe is beginning to yield results, creating hotspots for real innovation to develop. Collaboration between incumbents and startups, and regulatory support are essential to move to the next level. The time of collaborative disruption is beginning as established financial services companies collaborate with startups to accelerate the pace of innovation. This benefits both as the established companies are able to move more quickly through their more agile startup partners, while the startups gain access to investment, network and customers. Culturally, Europe has always lagged behind the United States in its appetite for risk – but in the future of fintech, he who dares wins.

FIVE TOP REGIONS FOR FINTECH INVESTMENT



FIVE-YEAR GROWTH IN FINTECH INVESTMENT



Source: CB Insights 2015

COMMERCIAL FEATURE

BRAVE NEW WORLD FOR BANKING...

Banks must stand strong on customer service in the face of digital disruption, says ***Guenther Meyringer****, head of Avaya Professional Services in Europe*

AVAYA
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Over the last few years, established banks have faced enormous change, not least the emergence of numerous new banks and neo-banking brands.

Online and mobile-only banks, such as Atom Bank and Tandem Bank in the UK as well as Lunar Way in Denmark, are attracting digital-savvy consumers, who don't see the need for bricks and mortar to be able to manage their finances.

Equally, non-bank services, such as PayPal, Google Wallet and Apple Pay, are carving chunks out of the market of the traditional banks. These services already have hundreds of millions of users and forthcoming financial regulation, such as the European Payment Services Directive II, will help further secure their place in the industry. This poses a real threat to established banks.

Banks are no longer simply competing against each other and able to rely on poor service everywhere as a means of maintaining customers. Companies from Apple to Uber have given the customer a new understanding of service, and it is against these fast and agile players that banks must compete.

This means traditional banks need to play to their strengths and where they can really set themselves apart is in the realm of customer service.

Customer relationships should be bread and butter for banks. By contrast, the newer, digital companies do not have the depth of customer experience that established institutions hold. Apple Pay, for instance, has outsourced its service provision for this very reason.

With their variety of offerings, from current accounts to mortgages and Isas, banks can also provide an holistic service that non-bank financial service providers cannot hope to match. These two factors are key to ensuring customers stick with one bank for life.

The other side of the disruption banks are seeing involves an omnichannel, digital approach to customer communication. This is part and parcel of the new banking environment, and key to modern customer service. Today's customers are demanding; they want a highly personalised, rapid service and they want to be able to engage with banks through a variety of channels.

Banks are adapting to this changing customer behaviour and becoming customer-centric organisations, where the business model is determined by and developed to address customer needs and concerns. The challenge now is for the banking sector to find the right balance between digital innovation and tried-and-tested customer service methods – the human touch.

One of the areas where banks have struggled to meet the challenges of the brave new world is in joining up all the different channels; a customer might log in online at home to research what mortgages are available, but then go into a branch and have to reiterate all the information when talking to a mortgage adviser.

Nor are banks the sole repository of financial information; a quick Google search can return more information than a customer in the 1950s would have learnt from hours of face-to-face advice.

Customers are more self-directed in the initial stages of making a financial decision, and with a wealth of online content, it is easy to compare and contrast as well as learn and research. So when a customer does want to speak to a real person, it is critical the experience is as seamless and simple as possible.

In the UK, some of the most well-known retail banks are giving their services a new lease of life by adopting this more customer-centric approach. For example, to avoid the problem of customers missing mortgage appointments because they are unable to access the right staff member at a convenient time, one high street bank is installing video conferencing software on terminals and tablets in private rooms in-branch.

This means customers can have a video meeting with a mortgage adviser whenever they drop into their local branch, even if that branch is small or in a remote location.

Furthermore, using the software they can scan, send and receive documents, enabling mortgages to be approved there and then. The video element is very important as it provides personal, human engagement that complies with legal requirements, while creating a faster and more efficient service.

> The challenge now is for the banking sector to find the right balance between digital innovation and tried-and-tested customer service methods – the human touch

Elsewhere, to help customers bank on the go, Emirates NBD Bank introduced a biometrics log-in capability, where customers can use a touch ID on the Emirates NBD mobile banking app to log in to their account securely. The bank also provides a mobile cheque deposit facility and a "mobile queuing ticket" service that enables customers to obtain a place in the queue for their branch transactions via the mobile app, even before reaching the branch, reducing waiting time upon arrival.

Going even further, as an alternative to bricks-and-mortar branches, some institutions are experimenting with digital branches. A digital branch, in its simplest form, includes a video contact centre channel that is integrated with a smart multipurpose kiosk and back-end systems and applications through commonly used open connectivity standards.

Using a digital branch, customers can access a centralised pool of remotely located banking experts through simultaneous video chat and co-browsing sessions around the clock in a way that's both private and secure. Since all the resources are centralised, these branches are 80 per cent less expensive compared with the total cost of a physical branch.

But banks are also reinventing the branch. Where once the customer was faced with shutters, staff locked away behind counter-to-ceiling screens and long queues, banks are now renaming the branch a "store" and modelling it on the coffee shop and airport lounge. Space, comfortable chairs, and even tea and coffee are making a bank branch a place to hang out rather than just somewhere to transact business.

All these examples illustrate how the financial services industry is adapting to the needs of the digital customer and fighting off the newcomers. It's a brave new world for the banking industry, but the opportunity is there to play to the existing strengths of the established banks and make customers even more loyal through using the latest communications technologies.

To find out more visit avaya.com/uk

Banking on keeping secrets as well as trust

If banks use the financial “secrets” they know about us, is this an invasion of privacy or a useful way of helping us manage our finances?

DATA
CHARLES ARTHUR

A famous, true story about big data concerns US supermarket chain Target that sent some pregnancy-related offers to a young woman. Soon afterwards, her outraged father turned up at the store, demanding to know what Target was suggesting about his daughter, who was still at school. The manager apologised.

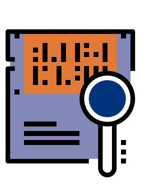
A few days later, the father returned with his own apologies – his daughter actually was pregnant. Target had been analysing her purchases and found a common thread with other women who some months later would buy nappies, baby milk and babygrows.

That’s the power – and the risk – of the data-crunching capability of new systems which can find patterns in billions of transactions from millions of people. But what if your bank starts doing it too?

What if your bank wrote to you one day noting that your car loan payments to a particular vehicle maker, combined with your home address, could mean that you’d be better off with its car insurance offer? Would that be an invasion of privacy or helpful marketing? Or what if the bank noted that the size of your mortgage payment to another provider, allied to your address, pointed to the chance for you to take out a cheaper mortgage with it?

Your reaction might depend on whether you ticked a marketing box decades ago, says Mark Guinibert, the banking partner in the management consulting side of KPMG. “The easier question is the mortgage one,” he says. “If you’re with, say, NatWest and they see you’re making payments to Halifax, but know they have cheaper loans themselves, why don’t they contact you?”

> “Data potentially holds the secrets that could let banks interact more usefully with us and even save us money in the longer term



585

investigations into data protection breaches in UK financial services were reported to the Information Commissioner’s Office in 2014, up 183 per cent on 2013

Source: Egress Software Technology 2015

Mr Guinibert says that some banks have begun to explore this, but are very wary of the consequences if it goes wrong. Yet if, or when, banks begin to adopt a big data approach to customers, using their huge computing resources to analyse, understand and even help, these could be everyday scenarios.

The data potentially holds the secrets that could let banks interact more usefully with us and even save us money in the longer term. Retail banks have both the content and the expertise to take advantage of it, says Steve Miles, technology partner at Advanced Capability Solutions. “A lot of their data, once it’s over five years old or so, is unstructured – it’s simply a big mass of information and big data methods work best on that,” he says. “And traditionally to process big data, you need to write the same sort of programs that banks have done for ages.”

But the key question remains, says Mark Whitehorn, professor of analytics at the University of Dundee: “If the bank pulls out more information than you want them to know, is that invasion of privacy? A bank can see when you’re overdrawn. You expect them to do that. But they might be able to see when you’re spending a lot on, say, alcohol or cigarettes. At what point does it cross the line? A bank has an enormous amount of information about your personal habits as does a supermarket or credit card company.”

The best opportunities to use data will probably arise when we do online banking, says Mr Guinibert. “If the bank sees that you’ve had a transaction with [travel firm] Kuoni, then the next time you log on to your account it could have a box on the right of the screen offering foreign exchange deals – nothing prominent, just enough to prompt people,” he says.

However, Professor Whitehorn points out that banks don’t need to dig down to individual data to benefit from the big picture. “They can see patterns: the postcodes in which young people are buying or renting; what is happening to off-licence spending, supermarket spending, general spending,” he says. “That information isn’t specific to any one customer; there’s nothing for an individual to complain about in its analysis. And that tells you about the local or national economy.”

To benefit, Professor Whitehorn points out, the banks don’t have to make huge amounts of money on specific transactions. “Banks don’t have to make 10 per cent margin on something. They deal in huge amounts of money, so improving their margin by 0.1 per cent is enough to yield a useful profit,” he says.

Mr Guinibert agrees. “We’ve seen something like that already. When the retailer Comet failed [in 2012], there were competitors seeking data about which postcodes had been popular with them and how much their customers spent,” he says. Such market data is sold, but doesn’t command a premium. “The valuable stuff would still be personalisation,” says Mr Guinibert. “But that’s untapped in the UK for services and offers. If we had that, then maybe we’d really be able to see which banks are helpful and useful.”

So far though banks have been strangely reluctant even to ask people if they would acquiesce to this use of data. Compared with a world where advertisers silently profile us by watching what we search for and which ads we click on, banks’ guarded approach to using data we provide them looks like something from the 20th century. But is that good or bad?

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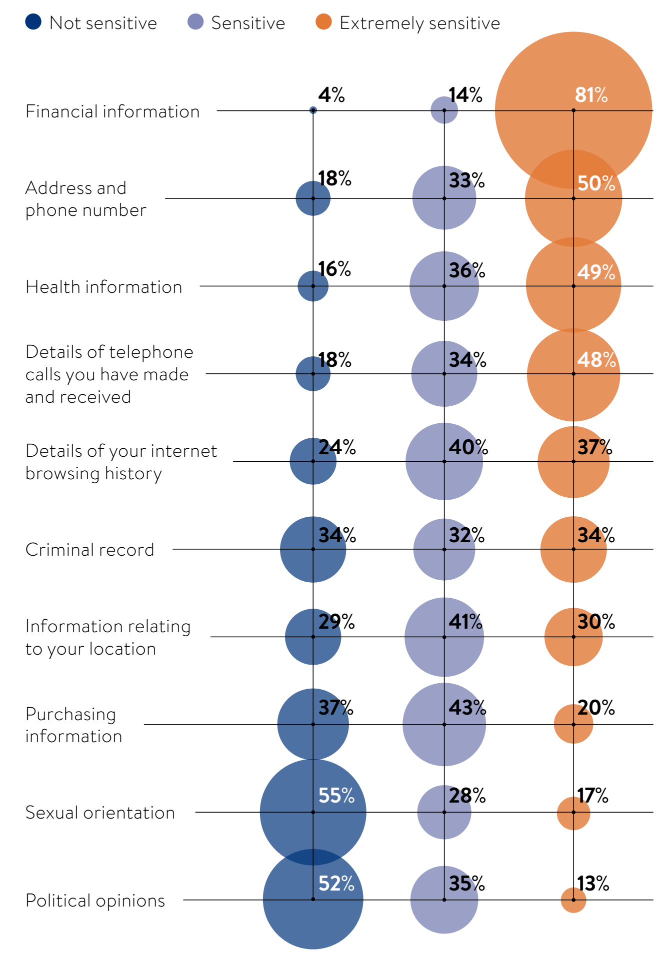
SENSITIVITY OF PERSONAL INFORMATION
SURVEY OF UK CONSUMERS



Source: Information Commissioner’s Office 2014

BANKS AND DATA SECURITY

Getty Images

Losing customer data is a nightmare for financial services businesses, but it happens with worrying regularity. Tales abound of laptops lost on trains. However, it’s complex, and in order to avoid fines, financial services businesses face big challenges. They have huge amounts of data under their control and have to move it around while also keeping tabs on who can access it. Fines imposed by the Financial Conduct Authority have focused minds.

“Banks are very conscious of the data they have,” says Steve Miles, technology partner at Advanced Capability Solutions. “Most now won’t allow client information about an individual account on to a standalone machine [such as a laptop]. Most are very good when it comes to securing information. But it does break down.”

New rules could force banks to disclose to clients if they lose data or have a breach. This would create a new atmosphere where safeguarding data is even more important, though it could have negative effects too, argues Mr Miles.

“Banks often struggle to share information internally. Understanding who is allowed to see information about a person and what they can do with it becomes onerous,” he says. Paradoxically this can lead to problems where data loss is more likely because people don’t know what’s being transmitted or who can be told. Total security is an impossibility, but the combination of the threat of fines, smarter technology and better systems is improving the situation all the time.