







for banking with unlimited potential

Today, banks of all sizes are being held back by outdated, legacy systems and increasing regulations.

But customers want innovation more than ever...

It's time for financial software to change. Finastra brings you a dynamic, open platform that will unlock the full potential of financial institutions.

It's time to open up to realize banking's full potential.

(THE FUTURE OF FINANCE IS OPEN

Join us at finastra.com





INNOVATE FINANCE

CONTRIBUTORS

DAN BARNES

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

TIM COOPER

Award-winning freelance financial journalist, he writes regularly for publications including The Spectator, London Evening Standard, Guardian Weekly and Weekly Telegraph

DAVID COWAN

Author and editor at-large of The Global Legal Post, Dr Cowan specialises in a range of legal and economic issues, and is a regular contributor to The Times Literary Supplement.

IAN FRASER

Author of Shredded: Inside RBS, The Bank That Broke Britain, he was business editor at The Sunday Times in Scotland.

SHARON THIRUCHELVAM

Writer specialising in culture and innovation, she has contributed to The Independent, i-D, VICE and Forbes.

FINBARR TOESLAND

Freelance journalist, he specialises in technology, business and economic issues, and contributes to a wide range of publications

raconteur reports

Jack Pepperell

Benjamin Chiou

Peter Archer

Justyna O'Connell

Elise Ngobi

Grant Chapman Kellie Jerrard Samuele Motta

Tim Whitlock

Although this publication is funded through advertising and sponsorship, all editorial is without bias and sponsored features are clearly labelled. For an upcoming schedule, partnership inquiries or feedback, please call +44 (0)20 3877 3800 or email info@raconteur.net

Raconteur is a leading publisher of special-interest content and research. Its publications and articles cover a wide range of topics, including business, finance, sustainability, healthcare, lifestyle and technology. Raconteur special reports are published exclusively in The Times and The Sunday Times as well as online at raconteur.net The information contained in this publication has been obtained from sources the Proprietors believe to be correct. However no legal liability can be accepted for any errors. No part of this publication may be reproduced without the prior consent of the







graconteur f/raconteur.net @araconteur_london

Fintech firms ready to face Brexit

The UK's financial technology sector may see strong investment, but access to the global market will determine its success post-Brexit

DAN BARNES

mploying more than 60,000 people, the fintech sector in the UK now generates almost £7 billion a year, according to chancellor Philip Hammond.

In fact, Mr Hammond says the UK tech sector already contributes a bigger proportion of our GDP than any other country in the G20.

The government is stimulating growth with up to £1 billion increased leverage from the British Business Bank. But this increased spending was announced only after the European Investment Fund, which had pumped £2 billion into UK firms, slowed its activity in the UK.

However, a Royal Bank of Scotland (RBS) investment awards scheme proposes a series of initiatives. worth around £750 million, which Mr Hammond hopes will boost competition in the UK business banking market and stimulate further investment in fintech.

According to Innovate Finance, the UK fintech trade body, venture capital investment in UK fintech surged 153 per cent in 2017 to a record £1.8 billion, through 224 deals.

This is in contrast to a total 18 per cent fall in global fintech investment last year to \$14.2 billion (£10.2 billion), and puts the UK second globally in terms of capital invested and deal volumes, behind the United States, which saw investment rise 21 per cent to \$7 billion (£5 billion) in 2017.

Interestingly, 54 per cent of investment in UK fintech came from non-domiciled venture capitalists, with 25 per cent from North America. Banks typically operate across

multiple markets and, consequently, service providers also need to work across borders. According to MEP Kay Swinburne, allowing cross-border mergers and acquisitions between fintech firms is necessary to support them. "Sometimes, organic growth is not enough," she says.

A nuanced understanding of the fintech business is needed to assess the prospects for the industry. There are two major dynamics which determine the success of technology startups in any sector.

The first is access to the funding necessary to bring a big idea to market and support it until it can start generating revenue. The second is the legal and political environment in which they operate, limiting



competitive forces and preventing regulatory barriers to engagement in the emergent industry.

For fintech startups, there has been a boost in UK funding growth, according to research firm Expand, up around 137 per cent in the UK from 2014, compared with 110 per cent globally over the same period. "This is partly driven by the emergence of open banking and driven by the second payment services directive (PSD2), leading to the emergence of many digital banks that take many of the top spots in UK fintech league tables," Expand says

PSD2, which came into effect in January, has forced banks to offer a standardised connection to thirdparty technology and allow third parties access to customer account and transaction data if the customer has given permission. As a result, the firms can operate services on top of the banks offerings. It is a good example of the effect that regulation can have upon the operating environment.

So far, firms in this sector have appeared to benefit. One digital bank. Mayfair-based OakNorth, which specialises in lending to small and medium-sized enterprises, reported a profit of £10.6 million in 2017 and received the second-highest level of investment, totalling £143 million, among UK-based fintech firms, according to a report by private

equity analyst firm Pitchbook and Innovate Finance.

Foreign exchange firms received the second largest proportions of investment (21 per cent) with Transferwise, receiving the greatest single investment of £197 million that year. Both Transferwise and OakNorth were in the top ten of largest deals globally in 2017.

Undoubtedly, there is opportunity here. Less than six months in, it's too early to tell the effectiveness of PSD2 at increasing competition. However, this pan-European regulation opens finance up for fintechs to support banks beyond the local level.

Across the Atlantic, US firms have historically had this as a key advantage, being able to scale across a large home market where European firms have been constrained at expansion due to changing regulations across borders.

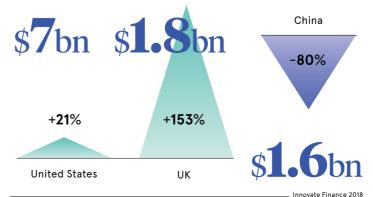
Philippe Morel, senior partner and managing director for London at Boston Consulting Group, says: "Regulatory harmonisation is very important because it affects the way that a fintech is allowed to collaborate with banks, the way they can use a bank's data, the way they can use infrastructure such as cloud technology."

The European Commission has made its first steps towards harmonising the rules across Europe through the Fintech Action Plan it announced on March 26. While it is still in the exploratory phases of developing a firmer regulatory framework, the plan has set the groundwork for national competent authorities to assess barriers to entry, impediments to growth and issues that will need to be resolved to support banking and the capital markets union in the European Union. The question mark that hangs over the UK is how it will operate post-Brexit.

"London will continue to be an attractive place to do business," says Matt Hodgson, chief executive of fintech Mosaic Smart Data. "That said, the sooner the market knows what the regulatory environment will be, the earlier it can prepare. I think there is certainly a potential risk that institutions hold back on making big investments into technology and other significant changes until they know what the rules will be. That isn't good for institutions or fintech companies looking to help them improve their operations."

Global investment in fintech during 2017

\$14.24 billion was invested worldwide, down 18 per cent on 2016



raconteur.net /future-fintech-2018

Time will tell if banks and consu

An initiative designed to open up banking, mainly to third-party fintech providers, and expand consumer choice seems so far to have failed to gain widespread trust



IAN FRASER

he UK's open banking revolution got off to a somewhat slow and shaky start.
Consumers remain largely in the dark, and the bulk of those who are aware of what's on offer are mistrustful and fearful about potential abuse of their data.

Only four of the nine banks that the Competition and Markets Authority (CMA) mandated to participate in the insurgency had their technological ducks in a row in time for the January 13 deadline. One of these seemed to be on a mission to sabotage the entire programme through the media.

And by the time the CMA's "managed rollout" ended on April 17, only 18 third-party providers, many of which are fintech companies, had received the Financial Conduct Authority's stamp of approval to plug themselves into the banking system and start playing in the open banking space.

January 13 was D-Day for open banking, the date by which the CMA was obliging nine of the UK's largest banks to be in a position to start sharing their customers' data, subject to customer approval, with third-party providers approved by the Financial Conduct Authority through standardised application programming interfaces (APIs).

However, Bank of Ireland, Barclays, HSBC, RBS and Santander were not ready on time. They have since jumped through the regulatory hoops to start operating in the open banking market, though Spain's Santander does seem to be the biggest foot-dragger and has been granted an extra year to provide 40,000 customers of its private banking arm Cater Allen everything that open banking will offer.

The near-term goals of open banking are to create a seamless, but secure, inter-operability between banks and authorised non-banks, so customers' transaction data can be released "out into the wild", as

Rowland Manthorpe at *WIRED* puts it, "in the hope that startups will turn it into innovative products and even new types of bank".

Even its evangelists now acknowledge that reaching this brave new world will take time. Among the biggest obstacles is lack of enthusiasm from the UK public. A host of surveys released in the run up to January 13, and since, suggest that most UK consumers remain blissfully unaware of open banking, dubious of what's in it for them

A host of surveys suggest that most UK consumers remain unaware of open banking and tend to regard the sharing of their personal transaction histories as anathema.

Bob Graham, head of banking and financial services at Virtusa, says: "Consumer awareness is still relatively low and the industry hasn't yet enough in terms of education or coming out with products and services which have grabbed people's attention."

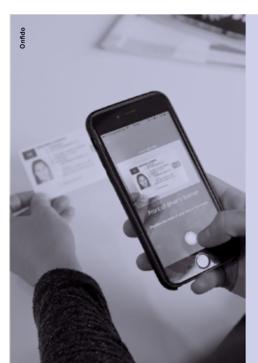
It did not help matters when RBS, through its NatWest arm, highlighted cybersecurity risks on the eve of launch day. The majority state-owned bank warned that open banking, which is essentially a gold-plating of the European Union's Second Payment Services Directive (PSD2), might enable hackers to "fraudulently access customers' money". This largely spurious assertion went down particularly badly at Open Banking Ltd, the body that has been charged with overseeing the rise of open banking. Imran Gulamhuseinwala, Open Banking's boss, describes NatWest's intervention as "an unhelpful bit of noise".

Then the Facebook-Cambridge Analytica scandal erupted on March 20. That further heightened public concern about entrusting personal data to the barons of cyberspace, as well as a growing recognition that "if the service is free, you are the product".

However, Flux chief technology officer (CTO) Tom Reay defends open banking saying the ways in which customers' data will be share has been massively misunderstood. "It's a lot safer than the screen-scraping, which is what we had before," he says. "That is fundamentally unsafe, as it involves providing your login data [username and password]."

Mr Gulamhuseinwala, who is on secondment from EY, elaborates: "From the outset, we wanted to create open banking as something that puts the consumer in control of their data. To achieve that, we've built consent right into the architecture of the system.

"Consent has to be explicitly given; it needs to be given for very clear and stated purposes, and if the customer wants to revoke that consent, they should be able to do that just as easily as they gave that consent. That is a fundamentally different approach to some of the large tech companies



Insigh

Machine-learning and artificial intelligence

In the new decentralised world of open banking, winning the trust of sometimes paranoid consumers is going to critical. One of the best ways for banks and non-bank players to do this is to embrace machine-learning and artificial intelligence (AI).

Companies in the field include
California-based Feedzai, which is
working with Lloyds Banking Group to
develop a comprehensive machinelearning and Al strategy for open banking.
Also New York-based ComplyAdvantage
uses a blend of Al and machinelearning to identify risks, and help
banks speed up account openings
and monitor transactions.

Another major player is London-based Onfido, which has raised \$60 million from venture capitalists and private equity since it was found in July 2012. Onfido uses machine-learning to verify people's identities and also has a focus on helping the unbanked to open bank accounts.

Co-founder and chief executive Husayn Kassai says: "The reason we have been able to grow so fast is because the world is moving online, but the way you verify identity has been stuck in the offline world. We knew the credit-bureau model was broken and that something better was needed.

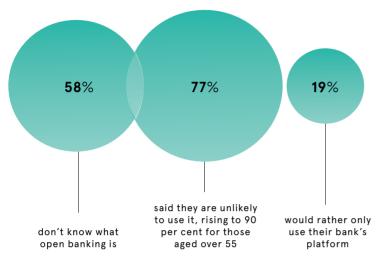
"If you think the purpose of a bank is to connect borrowers and savers and centralise trust, we can decentralise the trust piece, thereby helping consumers to borrow and save directly without needing that bank – and helping the market to become much more competitive."

The near-term goals of open banking are to create a seamless, but secure, inter-operability between banks and authorised non-banks, so customers' transaction data can be released

mers buy in

Awareness of open banking

Online survey of nearly 4,500 adults in the UK



and was designed with GDPR [EU General Data Protection Regulation] in mind.'

However, Ewen Fleming, financial services partner at Grant Thornton, has more sympathy for the way most consumers have so far greeted this financial revolution with a massive shrug of the shoulders. "The additional benefits consumers are going to get in exchange for sharing their financial data remain unquantified and elusive," he says. "Many in the industry have decided this is the right thing to do, without really weighing up what consumers want and need. I personally think there has been a lot of hot air, and the air just got hotter with the Facebook and Cambridge Analytica scandal."

Mr Fleming says it doesn't help that some banks remain ambivalent about entering open banking. "None of the banks see open banking as a big opportunity," he says. "For the most part, they're doing the bare minimum to ensure they're ready, exactly as they'd do for any other regulatory change.

But other commentators warn that if banks want to avoid becoming "dumb pipes" and losing control of their relationships with customers, they are going to have to become much more proactive. Some, including HSBC, are already working hard to develop new offerings, such as account aggregators, which pull in data from other sources approved by customers under the open banking banner.

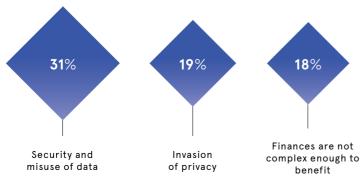
Danny Healy, API professional in the office of the CTO at MuleSoft, says: "The banks are all trying to understand what the killer app might be. They'd like a crystal ball, but life isn't that straightforward."

Mr Reay at Flux, which has already been "paired" on a serial basis with all nine participating banks since January 13, is more bullish about the banks' attitude, saying: "All the banks were genuinely enthusiastic and wanting to get things working. They're all embracing the opportunity of it."

Caroline Plumb, founder and chief executive of cash-flow management fintech, believes if open banking does turn out to be a damp squib. it won't be because of lack of consumer trust. "It will be the result of a failure to deliver the functionality that consumers and businesses are looking for, as well as a fragmentation of standards across markets globally," she concludes. ◆

Top reasons for not using open banking

Online survey of nearly 4,500 adults in the UK



CYBG/YouGov 2018

3186 2721 9735 9904

From niche to mainstream

As cryptocurrencies continue to gather traction, leading payments platform Wirex is seeking to bridge the gap between traditional financial services and the future of finance with its innovative hybrid solutions

he global payments industry is undergoing a metamorphic shift. Growing consumer expectations and rapid technological advances have converged to transform and modernise the traditional payment model

Arguably one of the greatest innovations has been cryptocurrency, whose uniqueness and appeal stems from its ability to transfer peer to peer without any bank or government intervention. In less than a decade, the concept of virtual currency has grown from the realms of sci-fi fodder to a very real disrupter to future banking.

You only need to look at the sharp spike in prices to understand its growing allure. Free from the political and economic factors that enslave traditional currencies, the efficiency and cost effectiveness of cryptocurrency appeals to the changing needs of the modern world.

Yet there remains a huge challenge While the market is reputed to be worth more than \$700 billion, its use in every day life is still not widely accepted.

It is an issue which leading block chain personal finance platform Wirex is seeking to overcome. Since its inception three years ago, Wirex has worked tirelessly to bridge the

)))

Contactless payment cards

It is time to combine cryptocurrency with traditional currencies in our daily finances

gap between traditional banking systems and the future of finance.

"We have reached a pivotal time in the financial services landscape." savs Pavel Matveey, chief executive of Wirex. "It is time to combine cryptocurrency with traditional currencies in our daily finances. They do not need to be mutually exclusive; we believe using both is infinitely better."

Harnessing its deep knowledge and expertise of the payments market, Wirex is the first of its kind to combine old and new through its digital wallets and contactless cards, providing its customer base a platform for everyday payments.

Mr Matveev explains: "We want to remove the barrier between cryptocurrency accounts and traditional bank accounts. We believe cryptocurrency has a strong role to play in the future, and our aim is to make it as simple and accessible to people as possible."

Customers of Wirex can access their Wirex account through secure digital wallets, allowing users to buy, store and exchange cryptocurrency safely, as well as convert to traditional currency for instant use in shops or online.

Wirex is currently the only provider in Europe to allow spending in cash converted from cryptocurrency through its contactless Visa cards, and recently integrated its debit card into its multi-currency accounts (GBP, EUR, USD) to make everyday purchases quicker and easier.

As Mr Matveev says: "We're solving the main problem of digital assets - acceptance. Instead of convincing millions of individual merchants to start accepting cryptocurrency, we have chosen to use existing merchant networks like Visa to access 40 million merchants across more than

At the heart of all Wirex services is the W-Pay technology which continues to evolve, making it possible to use more than 50 cryptocurrencies together with fiat money in a fully automated and secure environment, without the need to wait for blockchain confirmations.

It is a proposition that has proved immensely popular. Wirex now boasts 1.5 million users and \$1.5 billion transaction volume.

Its customers range from bitcoin beginners to seasoned investors and global citizens, from travellers and freelancers to migrants and foreign exchange workers, who need fast, secure and low-cost money transfer options.

"In an increasingly globalised world, cryptocurrency has the potential to democratise financial services for everyone in a way that traditional currencies have failed to do," says Mr Matveev. "Our expertise in IT, risk management and compliance allow us to offer the most secure and reliable solutions on the market. We know how important it is for our customers to trust in what we do and security is our top priority."

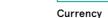
Indeed, decentralised technology has been hailed by crypto advocates as a means of reconciling many of the defects and failures that have plagued traditional payment architecture.

As financial innovation continues at pace, it is clear Wirex will be at the forefront of the march - offering an unrivalled hybrid personal banking solution that will drive customers' money to the future of banking.

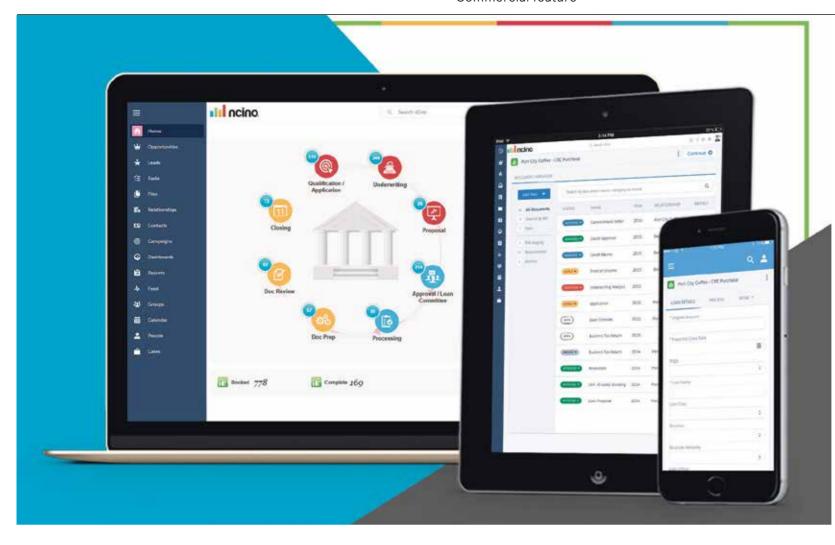
wirex







accounts



Banking on the cloud

Fuelling innovation in financial services during an era of disruption

he banking industry is experiencing a massive transformation, primarily driven by evolving customer expectations and rapid technological advances.

With consumer-focused companies like Amazon and Netflix offering seamless digital experiences, customers expect their financial institution to offer the same efficient, digital and personalised service.

However, low interest rates and new regulations are weighing on the top line, while high compliance costs are eating into the bottom line. The net result is that many, if not most, financial

Customers

financial institutions worldwide

Assets ranging from \$**200**M to \$**2**TRN

11 of the top **30**

US banks by asset size

institutions are struggling to earn their cost of capital while also adequately enhancing the customer experience.

While the challenges facing the financial services industry may opportunities appear daunting, abound. In fact, there is a viable solution for advancing digital initiatives that positively impacts bank operations, interfaces between systems and, most importantly, promotes a consistent, high-quality client experience: the cloud.

Cloud computing is no longer just an option for banks that want to compete at the highest level; it's a strategic imperative. The savviest banks have already turned to cloud computing, which not only promises productivity and efficiency gains, but also the chance to compete on a level playing field against nimble upstarts in the fintech space by providing a digital and seamless customer experience

For a variety of reasons, European banks have been slower to adopt the cloud than their North American and Australian counterparts, But that attitude is quickly changing. According to International Data Corporation. cloud spending is expected to skyrocket. By 2021, banks globally are forecast to spend more than \$12 billion on public cloud infrastructure and data services, up from \$4 billion last year. Banks that want to stay competitive will have to follow suit. lest technologically superior peers steal market share

Banks have been understandably slower in migrating products and services, and leveraging the benefits of the cloud. However, as cloud computing has increasingly proven to be a reliable and cost-effective opportunity, it's now an essential ingredient of competitive banking and meeting customer expectations. As such, it's necessary to appreciate the central role that efficiency plays in not only a bank's short-term profitability, but also its long-term solvency.

Consolidating operations into a cloud-based platform helps automate manual tasks, eliminate paper and increase transparency, which lead to massive efficiency gains. Case studies at IBM suggest that an effective cloud strategy can reduce a bank's infrastructure and software application costs by 40 per cent

The average client of nCino, which provides a cloud-based digital banking platform, experienced a 17 per cent reduction in operating costs and 22 per cent increase in staff efficiency

Cloud computing is no longer just an option for banks that want to compete at the highest level; it's a strategic imperative

after deploying the Bank Operating System. Specifically, an nCino client in the UK noted that the platform helped play a part in ensuring the bank is able to transact loans as quickly as possible with average transactions, from first meeting to cash disbursement, being completed in weeks, compared with six to nine months for traditional high street banks.

As tantalising as efficiency gains are, many banks have hesitated to embrace the cloud fully because regulators have not laid out clearer guidelines around its use. However, as regulators in the UK and European Union make concerted efforts to spur competition and innovation, it appears increasingly likely that the floodgates could soon open.

In fact, regulators have themselves begun using the cloud for data storage and reporting, including the Financial Industry Regulatory Authority, which works with Amazon's AWS. To this end, Deutsche Bank predicts that use of the cloud by banks will ramp up "materially".

Opportunities to increase efficiency and reduce costs are only some of the cloud's primary selling points. An additional and valuable benefit concerns security. As cyberthreats continue to materialise, security standards need to transmute to counter those threats

This is why securing data behind the heavy security blankets of cloud providers has become such an enticing proposition. Given the size and sophistication of the leading cloud companies - be it Amazon, Google or Salesforce - there's no question that they are among the world's most responsible stewards of data. According to BBVA: "Cloud platforms mind by specialised companies with



Pierre Naudé Chief executive, nCino

very little legacy constraints, which makes them potentially more secure.

For those relying on ageing servers, networks and infrastructure, security concerns abound, but banks are realising that security and privacy can simply be done better. Moving from on-premise datacentres to the cloud alleviates many issues, including providing a more reliable business continuity solution, as well as the ability to move data more quickly.

While many financial institutions still rely on archaic software to power their day-to-day business, modernising these legacy systems will benefit not only the bank, but more importantly the customer

The silos that exist between disjointed legacy systems lead to a fragmented view of the customer. Firms that lack a complete picture of a customer life cycle, for example knowing that a home buyer applying for a mortgage should trigger a homeowner's insurance promotion, miss out on important cross-selling and relationship-building opportunities. As a result, non-bank and alternative providers are creating niche products, which consumers have been quick to adopt.

Streamlining processes and conjoining the back and front-end of bank operations via a single cloud-based platform enables banks to offer the speed and convenience to compete with nimbler startups, while also strengthening relationships.

By adopting cloud-based tech, forward-thinking financial institutions can take advantage of new, secure technologies to meet intensive compliance standards and also give customers exactly what they want: fast and convenient access to their money and a modern, digital experience. The banks that recognise these needs and deliver a seamless solution will be the winners in the long-term and be well positioned to overcome any regulatory barriers to success.

It's not so much a question of if a bank should move to the cloud, but when

For more information please visit





International regulation of cryptocurrencies may be a necessity, but should not stifle opportunities offered by such an exciting new market

DAVID COWAN

future of cryptocurrency appears to be as crypthe hope of regulators. Certainly, it's what International Monetary Fund (IMF) managing director Christine Lagarde calls them. This is not just semantic quibbling. It provides the key to how regulators are likely to approach crypto and what regulation might look like in the future.

While regulators can see the benefits of crypto-assets, they are primarily concerned about their decentralised nature and the bypassing of central banks. This transactional anonymity makes

them similar to cash transactions, and offers a potentially new vehicle for money laundering and the financing of terrorism.

However, regulators are taking a broad view that regulation needs to balance the dynamics of consumer protection, anti-money laundering and financial stability, while fostering opportunity.

The lack of regulatory clarity around cryptocurrencies means some countries ban them, others jump on the opportunity, but most have a wait-and-see approach to how regulations will work out before acting. For instance, in Chile banks have essentially shut down their operation, while Australia decreed cryptocurrency exchanges must abide by new

anti-money laundering rules and European Union countries are studying the options.

The United States presents a more confusing picture. Various regulators approach crypto as commodities, property money, while the New York State Department of Financial Services tried to issue separate bit licences. Luke Seaman, head of digital policy at Cicero Group in London, says: "Regulators are looking to put things into existing buckets. So you have a situation in the United States where they are looking at crypto five ways from Sunday.'

Dr Luka Müller-Studer, legal partner at Swiss law firm MME in Zurich, says: "Specialised regulatory units have a very profound knowledge of this subject, but this is not necessarily shared in the upper levels of decision-making and politics. They talk using buzzwords, but lack the sufficient knowledge. There needs to be more legal certainty."

Since crypto-assets know no borders, the framework to regulate them must be global and international co-operation is indispensable.

The G20 is currently gathering data and will offer "very concrete, very specific recommendations" in July, ahead of their November 2018 summit in Argentina, according to Argentina's central bank chief Frederico Sturzenegger. However, some of the most crypto-associated blockchain-friendly jurisdictions, such as Switzerland, Singapore, Gibraltar and Bermuda, are not G20 members, which may be a factor limiting the impact of any co-operation.

The Financial Stability Board (FSB) and the Financial Action Task Force (FATF) are leading the regulatory efforts. The FSB, under the chairmanship of Bank of England governor Mark Carney, is looking at what new rules might be needed.

I would worry about an everincreasing desire to be seen to be clamping down, as it will push the action further underground

While the Paris-based FATF, a body setting standards for the fight against money laundering and financing terrorism, has provided guidance to countries on how to deal with cryptocurrencies and other electronic assets. Based on FATF standards, the IMF has conducted 65 assessments of countries' regulatory frameworks and provided capacity development assistance to 120 countries.

Regulators do not seem to be in a hurry to put forward firm proposals or regulation and this may not be a bad thing. In March, FSB board chairman Mr Carney wrote: "The FSB's initial assessment is that crypto-assets do not pose risks to global financial stability at this time."

Simon Taylor, co-founder at 11:FS in London, says: "We are in a period of calm. The next six to twelve months will be a consultative period and next year I think we will have policies on the table to $consider.\ However, there is pressure$ and the regulators will want to point to something they are doing by the close of the year."

Dr Müller-Studer explains: "A pragmatic approach is needed. We should be open, technology friendly, but closely monitoring developments, learning the process step by step and then looking at how we best set up a regulatory framework. It need not be centralised, but it should ensure a fair and transparent market."

This means looking closely at how secondary markets are regulated and defining fundamental legal concepts, including property, identity, title, personality and contract. It also means looking closely at the other side of regulation, namely legal enforcement.

There are know-your-customer requirements, but regulatory and supervisory technology can use the likes of distributed ledger technology, biometrics, artificial intelligence and cryptography. Mr Taylor says: "Regulators cannot be technology agnostics. While there are parallels to past innovations, this is a seachange and calls for a rethink."

The IMF's Christine

Lagarde says much needs to be done

before a consensus on crypto-assets is reached within the

global regulatory

However, some do sense the need for urgency. A recent Fleishman Hillard report, Fintech in 2018: The Fads, the Fears and the Future, warned: "ICOs [initial coin offerings] represent more risk than opportunity and regulators need to step in before disaster strikes."

Cicero Group's Mr Seaman advises against any dystopic thinking by regulators. He says: "I would worry about an ever-increasing desire to be seen to be clamping down, as it will push the action further underground. People prefer legitimacy, but they can go underground. We need engagement; it is a complex subject and we need a 360-degree view. The urgency is the need to see the situation in totality."

Regulation of crypto-assets is currently being approached with patience and, if done correctly, should end up balancing the need for legal protection with the commercial opportunities this new market offers.

FINTECH

From mobile payments to investment apps, fintech adoption has rocketed in recent years as disruptive, customer-centric startups continue to shake up traditional financial services, with China and India leading the world in almost every category



China leads in almost every category

Adoption of each category in the top five markets

Money transfer Savings and Financial and payments investments planning Insurance Borrowing 83% 22% 58% 46% 47% China 72% 21% 39% 20% 43% India UK 60% 29% 15% 59% 15% 27% 13% 32% Australia 57% 13% 25% 31% 12% UK Hong Kong Germany

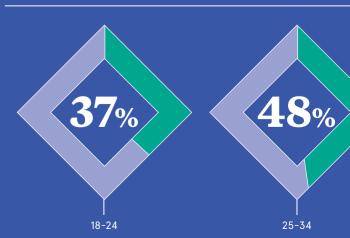
Global fintech adoption by selected country

Adoption is measured as fintech users as a percentage of the digitally active population





Global fintech adoption by age



◆ 2015 (only six markets were surveyed)

- **2017**
- Future anticipated use



Global investment activity in fintech companies



Most popular fintech categories

Payments

Fund transfer

Personal finance

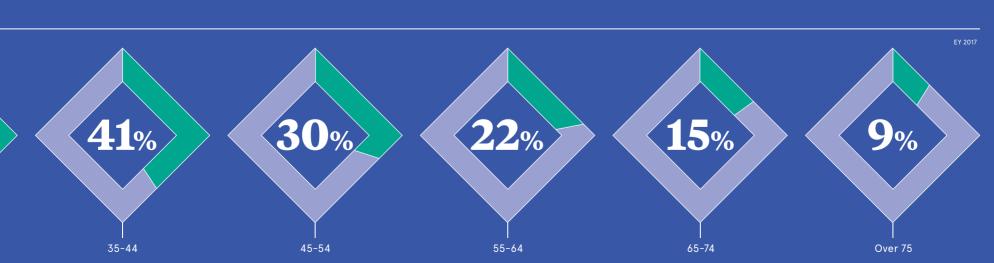
Personal loans

savings accounts

Insurance

Percentage of traditional financial services institutions that believe their customers are using fintech providers for the following...

Traditional deposits/ Wealth management



You might be starting a business...



Filling the gap left by financial services

Fintech firms around the world are providing solutions to many local problems, including financial inclusion, microfinance and online payments



FINBARR TOESLAND

Paystack, Nigeria

African economic powerhouse Nigeria has a thriving ecommerce sector that is set reach annual revenues of \$75 billion by 2025. But the prevalence of cash-on-delivery orders and a complex payments ecosystem has restricted the growth of this industry and left many smaller businesses unable to establish a presence online.

Lagos-based startup Paystack is working to remove barriers stopping African companies from accepting online payments, through products

such as the Paystack Payment Page. Thanks to the simplicity of this solution, even companies that don't have a website can create a secure ecommerce checkout link in seconds and receive payments from around the world.

Tools like this are especially vital in Nigeria, where the informal economy accounts for 65 per cent of GDP. Merchants across the continent are able to share their own payment pages on many different platforms by embedding the link into WhatsApp Stories, sharing via SMS or even including it in their Instagram profile.

Only around 1 per cent of transactions in Nigeria are currently online,

but Paystack hopes to power a range of innovative companies that will drive forward not just ecommerce, but also the next generation of mobile-based saving accounts.

"These are only a few of the ways Paystack has deployed fintech innovations to solve local issues. Such innovations are why Paystack has grown quickly in only two years to power 15 to 20 per cent of all online payments in Africa's largest economy. And we're only getting started," says Paystack chief executive Shola Akinlade.

Digital AML, Denmark

Denmark consistently ranks as one of the most financially transparent countries in the world and, according to the Corruption Perceptions Index, has been in the top four least corrupt countries for more than 20 years. Yet, a number of recent cases involving major Danish financial institutions have highlighted the challengers this country still faces around money laundering and financing terrorism.

Danske Bank, Denmark's biggest lender, admitted that money laundering and other illegal practices had been discovered around payments from Azerbaijan's ruling elite and newspaper Berlingske Danish reported that Nordic bank Nordea's Danish branch was used to transfer

money to tax havens. Danish startup Digital AML was founded in 2016 to ensure that companies can effectively meet the requirement of the 2017 Money Laundering Act and reduce incidences of money laundering. A key part of the legislation requires Danish businesses to know exactly who their customers are and be able to verify their identity. Digital AML links publicly available data with customer data, such as a unique corporate registration number, to confirm the customer is who they say they are.

The solution also continuously monitors changes in the public data and if there are any signs that a company is involved in either money laundering or terrorist financing, Digital AML warns its customers, giving them the ability to investigate further. Before this, companies would have needed individually to check customer data against public data, such as the European Union sanctions list and politically

of global companies have performed a risk assessment on anti-money laundering in the past two years

Financial Services Agency

Albo, Mexico

Traditional banks in Mexico have found it difficult to engage with their customers and provide top-level service. According to a Gallup survey, only 35 per cent of Mexican bank account holders say they strongly agree that their bank has great products and services that truly meet their financial needs, leaving innovative fintech companies well positioned to fill this gap.

Poor service isn't the only challenge facing bricks-and-mortar banks as less than half of Mexicans have a bank account, with many unlikely to open one soon, partly

due to the low number of physical bank branches and because it takes an average of around 42 minutes for rural Mexicans to travel to a branch.

 $The\,Mexican\,government\,launched$ a financial inclusion strategy in 2016, which highlighted the importance of leveraging technology to support unbanked citizens. Albo, a smartphone app offering banking services, gives users the ability to make payments with a connected Mastercard in-store and online, and see transactions in real time.

The benefits of solutions such as Albo are significant in a country like Mexico, where smartphone ownership rose to 35 per cent in 2015. For example, if a user forgets their PIN, instead of having to make a lengthy trip to a branch or wait days for a new number to be

posted, they can instantly change it within the app.

Fintech's full potential in Mexico is expected to be seen in a decade, with fintech startup accelerator Finnovista forecasting these solutions will control close to 30 per cent of the overall banking sector in the country.

of Mexican bank account holders strongly agree their bank has great products and services that truly meet their financial needs

WealthNavi, Japan

Japan is a nation of savers, but unlike many Western economies, cash and bank deposits are preferred far more than investments. In Japan, stocks and investment trusts represent only 19 per cent of household financial assets, according to the country's Financial Services Agency.

Japan are comprised of stocks and investment trusts

Financial Services Agency

A lack of comprehensive financial education is believed to be partially responsible for the aversion to investment products, with a new range of robo-advisers looking to make it easier for people with limited financial knowledge to invest.

WealthNavi, Japan's largest robo-adviser service, asks users a simple set of questions about their financial goals and the level of risk they are willing to accept, then a sophisticated artificial intelligence algorithm invests their capital without human intervention. Throughout the investment period, users can monitor their funds on their smartphone and see simulations of where the investment should be over a number of years.

Fewer than half of Japanese people, who are aged 20 to 29 and live alone, have any investments or savings, creating major challenges for many in this group when they approach retirement age. The introduction of online and mobile platforms that facilitate the quick and undemanding investment of relatively small amounts of money will appeal to digital-native millennials.

The low cost of services such as WealthNavi is showing Japan's savers that investments are not just limited to wealthy individuals or those with in-depth financial expertise and it only takes minutes to agree a longterm deal.

4G Capital, Kenya

Lack of access to finance is a major issue for entrepreneurs and small businesses across Africa. According to a report by charity Graça Machel Trust, 71 per cent of female entrepreneurs in East Africa had to use personal savings to fund their startups, due to an inability to raise capital. Many Kenyan banks are hesitant to lend to smaller, untested businesses, because of a government cap that limits the interest charged on loans

4G Capital, a Kenyan microfinance startup, has partnered with Canadian blockchain securities exchange Finhaven to launch the continent's first tokenised bond issue using cryptocurrency. By offering these tokens to investors, the company hopes to raise \$10 million and bypass the high cost of conventional bond issuances.

Thanks to the underlying blockchain technology, 4G will be able to effectively raise capital and scale operations. This unique partnership will bring much-needed US

dollars into Kenva and provide capital for small and medium-sized enterprises (SMEs), with Finhaven saving investors will receive the same level of protection as they would expect when investing in a traditional bond.

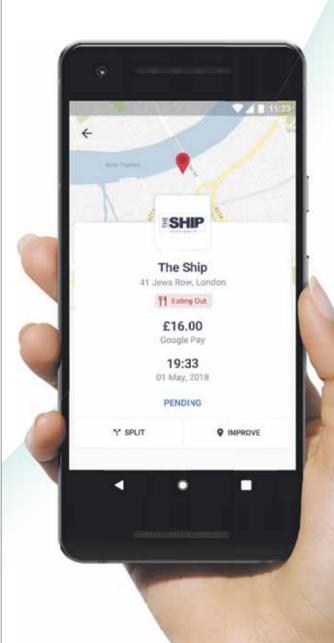
If the issuance proves successful, 4G Capital is on track to lend \$40 million over the next 12 months alone and directly impact more than one million people through

its services by 2020. The company also provides financial and business training to SMEs, alongside working capital, in a bid to help end the poverty cycle that threatens low-income Kenyans.

> Fruit and vegetable stall at the Kawangwa market on the outskirts



...or maybe you're just starting a bar tab.



Either way, Starling's mobile-only bank account for either Personal or Business fits effortlessly into your life (and the palm of your hand).

Two accounts, one intuitive app, with smart money management tools and same-day setup. It's how banking should be.



Targeting an older generation

Older people are turning to financial technology, so why aren't fintechs targeting consumers aged over 45 and is their focus on the millennial market holding the sector back?



t is little surprise that fintech usage is highest among millennials, with a global average adoption rate of 48 per cent among tech-savvy 25 to 34 year olds, according to EY.

So-called Generation X, the cohort born between post-war baby boomers and millennials, is not far behind with a take-up rate of 41 per cent.

Specifically, some 30 per cent of 45 to 54 year olds and 22 per cent of 55 to 64 year olds are now using fintech services. Yet, despite their growing asset share, older customers continue to be underserved.

For fintechs, younger people represent the lowest hanging fruit. They are natural early adopters, having reached major life milestones at the same time as new technologies came to market. Millennials have relied on a range of app-based services as they finished education, looked for a job, searched for a home and started a family.

@WEALTHTECHBook

JOW AVAILABL

However, although they are the most likely to use mobile and contactless payments for purchasing goods in the UK, when it comes to banking, millennials still favour traditional providers to mobile-only fintech challengers, according to research by Bloomberg Capital.

Jake Palenicek, director of financial services at YouGov, says this reticence may stem from a lack of experience and confidence in their financial dealings. "Digitalisation leans heavily on the self-service aspect," he notes.

Arguably this insight provides fintech companies with another angle from which to frame their business plans. If the sector is to scale and individual companies are to maintain market share, they will need to map their services on to specific demographics' financial habits, financial experiences and life-stage requirements.

Of all fintech services, transfers and payments are the most widely used, but they are also the most basic. Saving, planning and investment services, however, are gaining ground. Insurance is also on the rise, with 24 per cent adoption globally, but borrowing still lags far behind, with just 7 per cent of UK consumers borrowing through alternative lenders in 2017, according to EY.

While this rate of progression reflects the relative infancy of the market, fintechs will need to demonstrate a greater degree of sophistication to persuade older consumers, many of whom may have long-standing relationships with their financial providers, to part ways.

Their financial footprint is far more complex. "You have home ownership, fixed assets and government

benefits that paint a very different picture," says Evin Ollinger, chief executive of Golden, a personal finance platform tailored to older

customers in the United States.

American fintechs, such as Golden, are leading the trend towards tailored services to older consumers by addressing concerns over fraud and retirement planning. EverSafe markets itself as "the first service that applies technology to combat the financial exploitation of older Americans". United Income, similarly, is a retirement platform that provides money management tools for middle to upper-income consumers.

While True Link, in recognition that only 24 per cent of American baby boomers feel confident they have saved enough for retirement, offers a long-term personalised planning service to help users gauge how much they will need to save to sustain a lifestyle in retirement.

Fintech adoption figures also reveal a gender imbalance between male (35 per cent) and female (28 per cent) users. Here fintechs have

ginalised market. In Asia, where firms owned by women are less likely to be approved loans and financing than those run by men, the Asian Development Bank has found that the chances of securing capital through fintech are higher, albeit in smaller volumes.

Globally, the sheer numbers of the unbanked presents the greatest opportunity for the fintech sector. The World Bank estimates that more than two billion people have extremely limited access to financial services, with less than a third of the adult population covered by a credit bureau.

Fintech's strength lies in its

potential to serve the needs

unnoticed or ignored by

of consumers who have gone

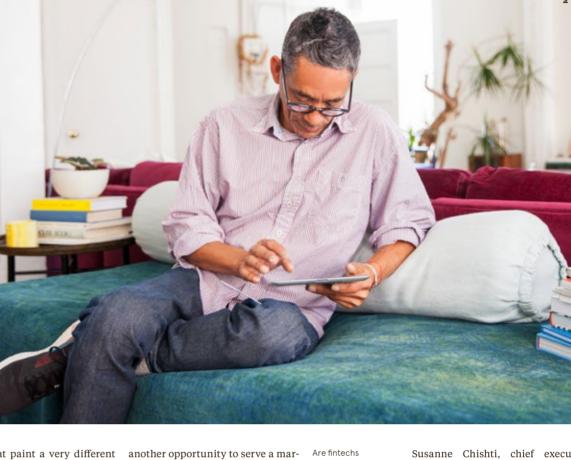
mainstream financial providers

missing out by not addressing a higherdemographic?

Susanne Chishti, chief executive of Fintech Circle, underscores the groundbreaking role fintech is playing in gathering non-traditional data for credit scoring. "I have seen great fintech companies in Africa that look at other types of data, including mobile phone usage, transactions, social connections, texts and calls, and even where your phone is charged; combined they serve as proxy for traditional financial data," she says.

Ms Chishti identifies a principle that holds true for every consumer segment. "The fact that this is a 'fintech solution' is completely unknown to the users," she says, "It only matters that it helps improve their lives."

Fintech's strength lies in its potential to serve the needs of consumers who have gone unnoticed or ignored by mainstream financial providers. To scale, fintechs will need to capitalise on the sector's inbuilt advantages: its potential for rapid adaptation, personalisation and an ability to see past unconstructive financial norms.





of how technology is changing the world of big money and high net

Chris Skinner CEO, The Finanser LTD

www.WEALTHTECHBook.com

■ @INSURTECH_Book

"InsurTech is on the brink of changing our industry, from the inside and the outside... The InsurTech Book has a big role to play in helping us build our knowledge base and expand our sense of the possible.

www.INSURTECHBook.com

Director General at Association of British Insurers



'Fintech's success depends upon talent which is in short supply'

n an increasingly competitive global landscape, the UK's attractiveness for innovators, entrepreneurs and firms alike will be key to the future prosperity of our financial services. From changing how we manage our money, to creating a more pluralistic finance industry, financial technology (fintech) represents a growth sector for the UK.

UK fintech is thriving, but it is also vulnerable. Its success has occurred against a backdrop of openness towards global trade and investment, and this is reflected in the international nature of its workforce.

Recently, Innovate Finance unveiled a report on the implications for that same workforce resulting from changes in immigration policy.

Fintech's success depends upon talent which is in short supply. The sector employs 76,500 people and this is projected to grow to more than 100,000 by 2030. With 42 per cent of fintech workers drawn from outside the UK, the sector is highly exposed to changes in the immigration settlement post-Brexit.

The government has a mandate to challenge the UK's net migration figure, but Brexit also provides a unique opportunity to re-imagine the immigration system to better suit the UK's needs.

Innovate Finance respects this mandate, but believes that any new system must not limit fintech's ability to attract workers from the global pool of mobile and talented individuals. This is because our report calculates that by 2030, there will be 3,300 fintech firms in the UK and the sector will need approximately 33,500 migrants from the European Economic Area (EEA) to support them.

The report predicts the most likely scenario that restrictions on EEA citizens are brought into line with those from non-EEA countries, resulting in a potential loss to fintech of £361 million as firms struggle to recruit the workers they need.

These talented individuals support growth in fintech businesses, whether they are founding entrepreneurs or software engineers. Such individuals complement rather than compete for UK jobs and a more restrictive immigration policy will potentially undermine this transfer of skills.

We believe support for fintech demands a balanced policy response, mitigating the impact on an already limited global talent

pool, at the same time supporting the development of local skills – a task which is long overdue.

At the Innovate Finance Global Summit, we announced the formation of the Fintech Strategy Group (FSG), launched with the City of London Corporation, providing an industry-led perspective on what UK fintech needs to prepare for the future. Fostering a collaborative dialogue on the sector's future, the FSG will bring together senior leaders from across the sector and ensure talent is pushed to the top of the policy agenda.

Working with key partners across finance and technology, Innovate Finance will develop a robust set of recommendations that support UK fintech. For instance, we recognise the need to redefine the term "highly skilled migrant" to reflect not just academic achievement, but a more sophisticated analysis of experience; the need to identify gaps in digital skills to create a mechanism for training local talent; and the need for smarter methods of sponsorship to reduce the costs of hiring for smaller fintech firms.

The UK cannot rest on its laurels. To sustain growth we must continue to attract the best international talent. As one of the most innovative and fast-growing areas of the UK economy, and an area where the UK is a global leader, the benefits of nurturing UK fintech cannot be overstated.

As both incumbents and startups alike look to collaborate and invest in talent, Innovate Finance remains optimistic about the future growth of fintech and will continue to promote the UK as a leader in financial services innovation.



Charlotte Crosswell
Chief executive
Innovate Finance

Levelling the playing field: How fintech is benefiting the UK's small businesses

Small businesses have trailled larger firms in accessing the best business applications and financial services. But that's changing thanks to a wave of innovation which is transforming economics and expectations in small-business technology led by firms such as **Xero**

mall and medium-sized businesses (SMBs) account for around 99 per cent of UK companies, employing more than 15 million people and turning over £1.8 trillion. They're the lifeblood of the UK economy, but until now haven't enjoyed access to the business applications and financial services their larger counterparts take for granted.

Managing cash flow and struggling to access capital puts the brakes on productivity, growth and even threatens the existence of these small businesses.

To level the playing field for small businesses, online accounting software provider Xero collaborates with banks, fintechs (financial technology firms) and the world's best app developers to create the richest ecosystem of apps and services in the sector, all with the aim to help small businesses thrive.

Businesses can securely connect their bank and other apps to Xero to reduce the burden of manual tasks through powerful automation, and have a single dashboard of key metrics on their performance.

"We're providing a beautiful, digital, joined-up vision for small businesses that's hitherto been too complex and costly to realise," says Edward Berks, Europe, Middle East and Africa director for fintech and ecosystem at Xero.

"For a long time, small businesses have not benefited from the innovation and investment made in corporate and retail financial services. But open banking and broader changes in the technology and competitive landscape are contributing to a surge in innovation in small-business banking from the UK's big banks and challengers such as Tide and Starling."

Xero's fintech vision is part of a wider app partner ecosystem which contains more than 700 apps divided into categories such as inventory, payments and debtor tracking. "Every business has its own set of operational requirements and objectives. So we've created a one-stop shop, where business owners can find what's right for them, whether they

For a long time, small businesses have not benefited from the innovation and investment made in corporate and retail financial services

run a horse-dentistry practice or a textiles business," says Mr Berks.

"To afford such a breadth of capability to our customers, collaboration and partnership have been essential. We provide the best book-keeping experience to our customers and to the accountants they rely on, and work hard to ensure that the very best small-business apps and services work seamlessly with our platform."

The emergence of open banking will further streamline the way small businesses access financial data and services, Mr Berks adds. For almost ten years, Xero has led the way in this space, with its "direct bank feeds", enabling businesses to pull their bank data straight into their Xero accounts without the need for paper bank statements and manual data entry.

Already, Xero customers have access to the best payment services from PayPal, GoCardless, Stripe and Worldpay, enabling secure payment for their services up to 19 days faster,* boosting their cash flow.

And the company is working with lenders such as MarketInvoice, iwoca and Satago that provide loans and invoice finance specifically for small businesses. These firms use data straight from a customer's accounts to streamline applications for lending, often providing cash in a matter of hours.

"We're finding that accountants are recommending apps and services that integrate with Xero to better serve their clients," says Mr Berks. "Our customers consistently tell us that they value the views of their

accountants and book-keepers above those of any other adviser".

Xero continues to grow its base of 250,000 small-business cusomters in the UK and more than 1.2 million worldwide. Consequently, technology and service providers wanting to reach the SMB market are waking up to the important role being played by cloud accounting platforms such as Xero, and those progressive accounting firms that are investing in their business advisory capabilities.

This promises even greater access to the very best technology and a further removal of friction in everyday activities such as getting paid and making payments.

As Mr Berks puts it: "For the first time, it's possible for small businesses to access the competitive and operational advantages that have for too long been the preserve of corporates. This revolution has the potential to make a very real impact on the UK economy by improving the competitiveness and productivity of small businesses."



*Average improvement for Xero users in the UK who had Stripe and PayPal enabled as their payment providers between July 1, 2016 and January 31, 2018



Edward Berks
EMEA director for fintech
and ecosystem, Xero

How to upgrade the in-store experience

Banks and acquirers are adopting next-generation point-of-sale systems. But why is there such excitement over a payment terminal?

hat can you do with a till? It's not a question retailers often ask. In fact, despite the digital revolution in commerce, the till seems stuck in the dark ages. It sits in stores as a primitive unit for swiping cards and handing out loose change

It's an absurd oversight. Consumer expectations are soaring. They demand brilliant in-store experiences. They want to pay in multiple ways, in multiple currencies. They are making all sorts of extra demands on staff, such as instant inventory inquiries and home-delivery options

Shop owners deserve more too. The till sits front and centre of the store operation. Why is it not doing more, like managing staff rosters or running loyalty programmes?

In fact, the next-generation of point-of-sale (PoS) systems are so revolutionary they bear little resemblance to what came before. They are cloud-connected smart platforms, capable of running apps to help shoppers and merchants accomplish a galaxy of tasks.

There's a parallel with mobile phones. In 2007, the launch of the iPhone reinvented the concept. Suddenly the device which handled calls and text ran maps, photo-editing and sharing, banking, calendars, and a host of other life-changing apps. The payment terminal is at the same juncture.

For smaller retailers the implications are staggering. A next-generation PoS can provide the sort of firepower normally the preserve of global blue chips.

Take payments. Consumers want to pay in a variety of ways. Chinese consumers prefer Alipay and WeChat Pay. These are QR code-based payments. A next-generation PoS can make it easy to integrate these payment methods

Suddenly a huge category of shoppers. previously ignored, is added to the market-base.

Young consumers can be targeted too. For example, Bluetooth and NFC (near-field communication) payments are valued by younger European consumers, who feel more comfortable paying with their smartphone than with a card. A smart PoS helps millennials pay with Google Pay Smart Tap, using NFC. Consumers transmit loyalty and reward information stored in their Google Pay accounts to apply to the transaction

Loyalty schemes can be managed using the PoS. Market data collection is transformed. A smart payment terminal will gather consumer data, such as purchase methods, volume, value and product groupings, and what times of day certain products sell best. The data can be supplemented by thirdparty data. A cloud-connected PoS can access data affiliated to the credit card or payment type.

Now the merchant can see the country of origin of consumers and their gender. Marketing becomes based on fact, not hunches.

A smart terminal is a game-changer for merchants. And there is a strong upside for banks and acquirers who process payments. They are always searching for new ways to help their clients, the merchants, boost sales and improve customer loyalty. An advanced PoS unlocks a world of possibilities.

"Acquirers and banks benefit hugely by providing merchants with superior technology," says Patrice Le Marre, executive vice president banks and acquirers at Ingenico, a leading PoS innovator. "They improve client retention by competing on value-added services, not price. Best of all, they become trusted technology partners,

as the PoS becomes a central part of day-to-day operations.

The architecture of the PoS means there's no obvious limit to what can be achieved. Android OS, connected to the cloud, is the leading choice. Android is familiar to users, developer friendly, and populated with an ecosystem of payment and management apps for retail purposes.

Whatever you want to do, there's an app for it. Logistics is a great example. When customers are online they expect to be able to determine how and when their goods are delivered. When polled, 73 per cent of consumers expressed a desire for the same service in-store too. An Android logistics app, run on the PoS, means staff can offer delivery options.

Staff management is another capability. Merchants can improve productivity as they can run all their business apps on their PoS. The gains in terms of time and efficiency are similar to when smartphones started to run apps.

For smaller merchants this is a huge deal. Until now these tasks have been too expensive and complex to be tack led. Now they are not only affordable and easily deployed, but done so on a single integrated system. Data analytics is improved, as it uses real-time information direct from the retail operations.

Perhaps the most complete PoS on the market is the new Axium smart terminal, by Ingenico, which was launched in February at the Mobile World Congress.

Ingenico Group is well known in the payment space, with more than 40 Acquirers and banks benefit hugely by providing merchants with superior technology. They improve client retention by competing on value-added services, not price. Best of all, they become trusted technology partners, as the PoS becomes a central part of day-to-day operations

> years' experience partnering with acquirers and merchants. Ingenico spans multichannel payment solutions, ecommerce security, conthan 40 million terminals are deployed by Ingenico.

> minal designed to give merchants, banks and acquirers, mastery of all the latest payment technologies. A Cloud Services Centre makes it quick and simple to deploy new payment methods and loyalty schemes, to data collection and analytics. Security is bank grade.

appropriate to think of Axium as an

ecosystem, rather than merely a piece of hardware.

"The impact for smaller merchants will be tremendous," says Frederic Lepeintre, vice president of marketing at Ingenico. "The PoS gives them the ability to run Android applications for pretty much any tasks. Loyalty programmes, new payment schemes. scheduling, whatever they need. Activities are run together, making data integration so much easier. And as requirements change, so can the PoS. Upgrading it can be as simple as downloading a new app."

Biometric readers are easily added to Axium, as are scales, a cash register or bar-code reader. An open API (application programming interface) offers bank-grade secure connection to third-party services

The advantages for merchants, smaller retailers in particular, are obvious. Banks and acquirers stand to benefit too. They can help smaller clients compete with larger rivals with bigger budgets. And the deployment of new payment services means extra income for all parties. It really is the start of a new era.

Axium is an Android-based PoS ter-

The universe of apps delivered over the cloud makes it more For more information please visit ingenico.com



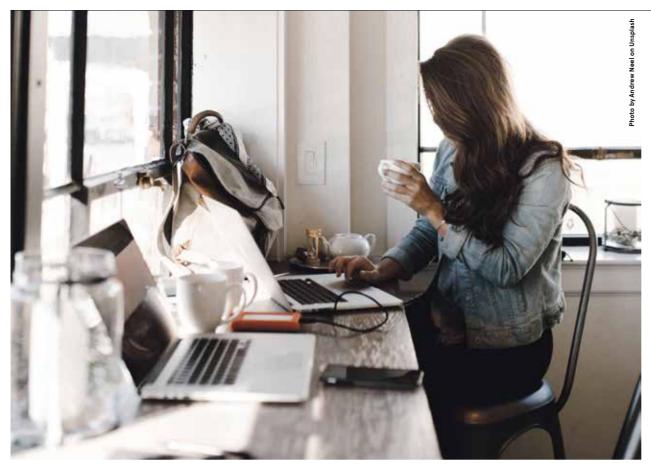


Patrice Le Marre Executive vice president banks and acquirers, Ingenico



Frederic Lepeintre Vice president of marketing Ingenico

FINANCIAL INCLUSION



Small firms get finance for growth

Cut off from finance by big lenders, financial technology platforms are coming to the rescue for cash-starved small businesses

TIM COOPER

or swashbuckling entrepreneurs Beth Jones and Gareth Noble, financial technology has played a crucial role in firm's exponential growth. The co-founders of Pirate's Grog Rum started their boutique spirits business less than four years ago and have already built revenue to £400,000.

Two loans from peer-to-peer lending site Funding Circle, for £5,000 and £30,000, were pivotal in supporting this expansion. Ms Jones says they had taken small loans from their high street bank before, but the bank caps the credit available to them, limiting their options.

"Plus there is much more paperwork and hassle, for example, needing face-to-face meetings at our branch an hour's drive away," she says. "Funding Circle was so much easier and gave us what we needed. all online. In fact, we arranged the latest loan while on holiday in India. It is a great relief to know it is there to ease cash flow when we need to restock at busy times.

"We have grown 100 per cent every year and are on track to make £800,000 next year. We couldn't have done that without the loans. Traditional banks are archaic and need to speed up, otherwise newer banks will scoop up their customers."

Financial technology (fintech) is helping small companies in many ways, from innovative accounting software to financial management, insurance and business valuation services.

A recent report by Business Insider Intelligence says financial services providers have underserved small businesses because they make less revenue than larger firms. But fintech providers are finding ways to serve even the smallest businesses profitably.

Susanne Chishti, chief executive of funding group Fintech Circle, says these new tools will help entrepreneurs spend much more time growing their businesses, rather than being bogged down with financial

issues. With emerging technologies, such as big data, artificial intelligence and biometrics, the potential is almost limitless.

One of the most profound changes is in banking for small businesses, especially since the Competition Market Authority's revolutionary open banking rules came into force in January. These aim to ensure that the UK's nine biggest banks share their data more easily with other firms and that fintech startups therefore have fair access to customers.

Before open banking, if a new fintech firm wanted to work with a bank to develop solutions, they had several time-consuming and challenging hoops to jump through. such as gaining agreements from procurement teams. But with open banking, they can use interfaces known as APIs to do this much more simply and quickly. APIs can also enable them to build new applications on to existing products, thereby capitalising on existing customer bases.

We created an infrastructure where any investor, big or small, can lend to small businesses

Ms Chishti says this will shift control from big banks to fintechs and empower small-business customers. So will new fintechs hurt banks? There has been a perception that large banks would eventually suffer "death by a thousand cuts" as they were gradually replaced by numerous fintech apps, says Ms Chishti. But that has been superseded by increased co-operation between the two. Instead of crossing cutlasses, banks and fintechs will trade data for ideas and innovation with the aim of improving products for small businesses.

Fintech solutions, such as Funding Circle, are already having a big impact on financial inclusion by providing a small-business lending platform that bypasses traditional banks. Since setting up in 2010, it has lent £5 billion to businesses globally, creating 100,000 jobs directly and indirectly.

Independent research by Cebr economics consultancy found that 21 per cent of borrowers on this platform believed they could not have secured finance elsewhere. Funding Circle says many of these are profitable businesses, but "asset light", and traditional banks only lend to companies with security.

James Meekings, UK managing director and co-founder of Funding Circle, says the platform was founded as a response to banks avoiding small-business lending after the financial crisis. "Ten vears on, creditworthy businesses still struggle with this broken system, missing growth opportunities despite their importance to the UK economy," he says.

"We created an infrastructure where any investor, big or small, can lend to small businesses. Today, our broad community of investors has helped 45,000 businesses across the UK, United States and Europe access the finance they need to grow."

There are pitfalls and challenges with fintech. According to the World Bank Group, these include data privacy as customers increasingly share their data in return for personalised services, whether investors in peer-to-peer lending are fully aware of the risks, and whether fintechs have enough supervisory capacity to understand and monitor new applications.

Aaron Hughes, managing director of Equiniti Riskfactor, which offers tech-based risk management solutions to traditional banks, challenger banks and fintech startups, says: "Fintechs improve customer engagement. But they don't necessarily have the skills, resources and process to make proper lending decisions.

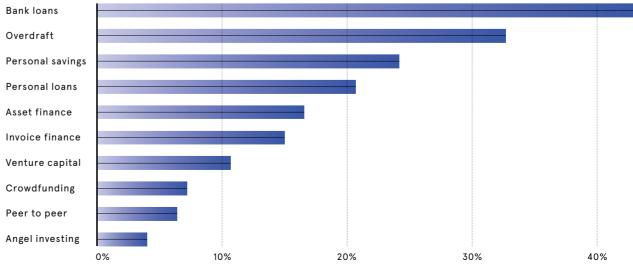
"This can lead to disappointment because they cannot validate the loan, process delays or to poor loan decisions. Traditional banks have the skills and resources to support the approval process. But they lack the money to invest in technology as they are still rebuilding their balance sheets. So they will partner with fintechs."

Simon Paris, deputy chief executive of Finastra, the world's third-largest fintech firm, says that whatever the challenges, banks need to raise their game because as digital services grow, so will small-business expectations of fast, simple, tailored and joined-up services.

"For example, these customers won't just apply for a loan, but will be guided seamlessly to other relevant services, such as business credit cards, liquidity solutions, commercial mortgages or even business opportunities," he says.

The ability to leverage data could also mean swifter access to capital and greater insight into their finances, adds Mr Paris. And it will open access to financial management tools and apps, for example, which can support cash-flow management. This will provide muchneeded transparency, helping them to make better business decisions and ultimately improve financial inclusion for small businesses.

Types of finance used by small and medium-sized businesses in the UK



Close Brothers Group 2018

