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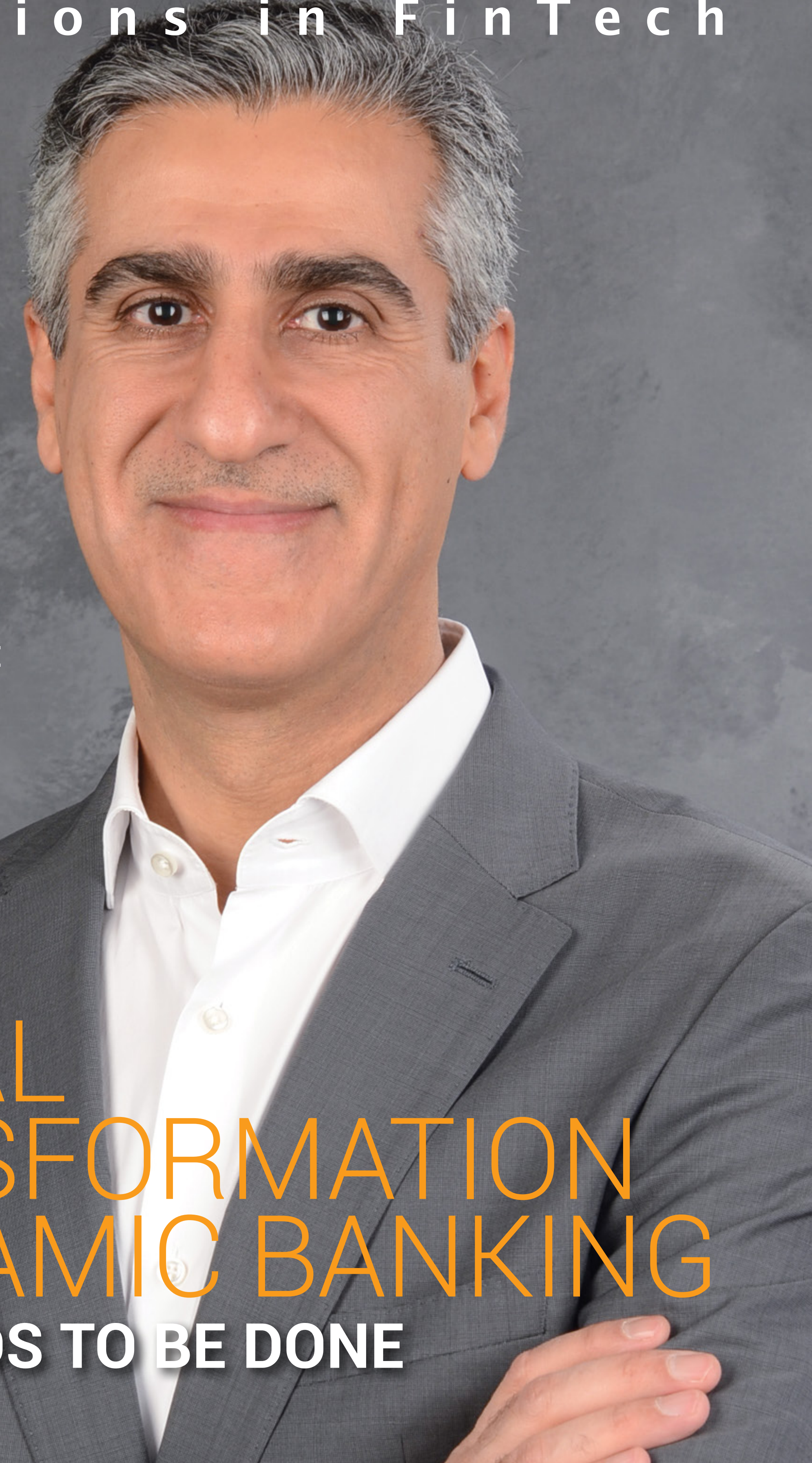
Financial IT

Innovations in FinTech



BANKING ON CLOUD IN 2020: BE BOLD TO BE AGILE & OPEN

Tim Hooley,
Chief technologist, EMEA financial services, Red Hat

THE MOVE TO OPEN BANKING

Mohammed Kateeb,
Group Chairman & CEO
Path Solutions

THE ROAD TO REAL-TIME SIMPLIFYING THE WAY FINTECHS ACCESS INSTANT PAYMENTS

Alex Schoonkind,
Head of Europe at Form3

Esam Al Kheshnam,
CEO, ITS Group

DIGITAL TRANSFORMATION IN ISLAMIC BANKING

MORE NEEDS TO BE DONE

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WHAT REALLY MAKES THIS YEAR DIFFERENT TO 2019?

One of the contributors to this edition of Financial IT raises the possibility that the global financial services industry as we know it could cease to exist.

Of course, this outcome does not mean that the activities of the global financial services would not take place. Rather, they would be performed in different ways by Fintechs that are very different to traditional financial institutions. Payments services providers will enable individuals and businesses to make and receive payments. New lenders will raise funding from capital markets and savers and recycle the loans to borrowers – using big data and Artificial Intelligence to make credit decisions. A huge variety of platforms will distribute savings products, insurance protection products and other offerings to customers.

In early 2020, Fintechs and traditional institutions are focusing on what this means for their businesses. Even a cursory glance at the articles in this edition of Financial IT will highlight that the Cloud will play a key role in new business models that are being developed. Open banking – the central theme of the European Union's latest Payments Services Directive (PSD2) requires systems that are digital, flexible, and accessible on a 24/7 basis.

Another key theme which runs through this edition of Financial IT is that the end customer is sovereign. Over the last 20 years, improvements in computers and mobile phones, along with continued innovation in financial services, has resulted in an empowerment of consumers. User experience (UX) is a major topic in many of our articles – and will become something that is discussed more in the coming year.

Although it is not referred to by name by our contributors, collaboration is a more important concept in 2020 than it was in 2019. Expect it to matter even more in 2021. Collaboration is easily defined. It is a situation where one organization helps another to cope with the enormous changes that are underway at the intersection of financial services and IT. Some of our contributors this month discuss how they are working with traditional financial institutions to adopt a digital-first strategy. Others explain how they are working with Fintechs to gain access to financial services infrastructure that is essential if the Fintechs are to make their visions a reality.

Over the last few years, our contributors have spent a lot of time discussion regulatory changes such as PSD2. In fact, the development of APIs that will really enable open banking across Europe is still a work in progress in early 2020. The regulations appear to have outpaced the ability of traditional institutions and Fintechs to adapt. By the end of this year, that will likely not be the case.

We hope that all participants at FinovateEurope 2020 in Berlin have a very successful conference. We are certain that there will be much progress before the 2021 conference.

by Andrew Hutchings, Editor-In-Chief, Financial IT

Financial IT
Innovations in FinTech

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CRYPTO OR GOLD

It's the start of a new year; a new decade and I am feeling great because I am back in my twenties again!

In thinking about when I was in my twenties and already into my banking career, there were things that I did not think about then that I do now. How do I increase, preserve and protect the wealth that I am creating for the future? Thinking about the future was not what I did best in those fun-filled days.

When I think of this today, I realize that everything is against me and us to protect our wealth creation. Let me explain to you what I mean.

The earliest record of coins dates to the sixth century BC. Fast-forward to the 17th century AD and the British Pound Sterling would be an example of a reserve currency equally backed by the value of precious metals. This meant that there was never more money than there was gold in the banks. This gave way to the current fiat system in which national currencies are no longer backed by gold but are simply accepted because the government deems it legal tender.

This is a good time to ask why hold Fiat when most reserve currency central bankers want to devalue their currencies and are engaged in the unsustainable overproduction of money.

My question is what will be the best storehold of wealth to have. How can I protect me from the governments, politicians, economists and bankers that are aiming at my wealth?

My answer was to look into the future and past at the same time.

Crypto Future

Looking ahead crypto is a clear option for future wealth preservation.

The challenge has been giving the people what works for them. The next 100 million people who enter cryptocurrency will not really care about cryptocurrency. It will be out of need and want. It will be to play some game, social network usage, or earn a living, and using cryptocurrency for an application, its need and want.

In banks and financial institutions, I expect crypto growth to continue in 2020. Eventually almost every financial institution will have a cryptocurrency operation of sorts. I am encouraged in part by the Survey of Endowment Funds (www.globalcustodian.com/wp-content/uploads/2019/04/The-institutional-crypto-backers-How-endowments-are-allocating-to-cryptocurrency-investments.pdf) and the State Street Survey indicating 94% of their clients hold digital assets. I expect traditional asset managers will continue to have an increased interest in adding crypto during 2020.

I expect volumes on crypto exchanges to grow strongly, especially those that cater to non-U.S. traders. This will increase due to retail activity in ecommerce and payment companies accepting crypto's as well as the opportunity for crypto holdings to earn interest and to borrow using crypto as collateral. Although opening fiat banking accounts and payment services will remain an issue for crypto companies.

Two other crypto areas that will add to this are Central Bank Digital Currencies (CBDCs) and Stablecoins.

A number of Central Banks have announced potential centralized digital currencies that in effect mirror the country's Fiat. These are substantially different from Stablecoins in that the recordkeeping for individuals and businesses owned value is with the central bank. I believe this is headed to a basket of digital currencies for price stability possibly from the IMF itself.

I expect stablecoins of major currencies will gain traction as a regulated, open money movement rail for those currencies. The regulated fiat-backed stablecoin market will experience strong growth rates as they become the money transfer rail that is regulated and runs on open networks for any crypto wallet to send and receive.

As cryptocurrency moves from for trading and speculation to real world utility, the 2020s will see a great increase people holding and using cryptocurrency as the new store of value. Every investor, portfolio and saver will have some crypto to fight against inflation and politicians in order to preserve the wealth they have worked hard to create.

Gold Past

In looking back, history shows that the most dependable storehold of value is Gold.

The concern that inflation is coming is completely valid. Inflation is a big problem and the traditional solution is GOLD. During the last year, the price of Gold has risen over 30%, why?

This is where it gets interesting: natural resources go through BOOM and BUST periods. When gold prices are high, mining companies are out for new discoveries. Once they start mining the supply of gold increases, pushing prices down. As the price falls, the miners' profits fall, investors lose interest and then production is reduced. This causes supply and prices to fall, and the cycle starts again. Except now it's different. The mining executives who supply the world with gold are saying the world is running out of gold and that supply is declining. Unlike oil and food, there's no substitute for gold and the biggest players in Gold are saying we're running out.

The World Gold Council reported that central banks bought 668 tons of gold during 2019, which is more than 2018's record. In fact, the key drivers in gold demand this year stemmed from central bank purchases. Central banks buy gold to protect their currencies' purchasing power in the event of an inflation. This offers an inside look into the minds of central bankers.

The days where the dollar is the reserve currency are numbered and we're going back to basics. You know, everything old is new again. Gold was money in the past and it will be money again in the future, and central banks are reading the writing on the wall and increasing their gold reserves now.

The adoption of crypto assets mixed with moving from Fiat to Gold is the new old direction for preserving your wealth. In crypto the question is to go Bitcoin or stablecoins. My eyes say Bitcoin, but my head sees stablecoins. Either way, today, I would tell the twenty-something me to protect wealth with a new old vision of Crypto and Gold.

by Chris Principe, Publisher, Financial IT

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Finnovex Middle East will bring together Fintech Influencers, Senior Banking Experts and Financial Industry Leaders to discuss and deliberate on the trends and opportunities that will determine the future of the Banking and Financial Services Industry.

With FIs now looking to become truly digital entities, it will be innovation that will act as the differentiator between the best and the rest. The industry is facing challenges related to cyber threats, data protection and increasingly complex regulatory requirements - making the task of navigating innovation increasingly demanding. This must-attend summit will focus on the developments in the Financial Services Industry, with an emphasis on the impact of Technology and Innovation in this sector.

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DIGITAL TRANSFORMATION IN ISLAMIC BANKING

MORE NEEDS TO BE DONE

Interview with Esam Al Kheshnam, CEO of International Turnkey Systems (ITS) Group

Financial IT: How would you summarize the changes that are taking place today in the Islamic banking industry in the Middle East and North Africa (MENA) region?

Esam Al Kheshnam: The region's Islamic banking industry is transforming at an astounding speed. New technologies are being embraced that are changing the way people think about and conduct their banking. Technological advancements are a key driver of this change but technology per say is not what is making the digitalization of banks vital, it is changing customer expectations.

Financial IT: What are the customers looking for?

Esam Al Kheshnam: Today's banking customer expects a fast, seamless and personalized banking experience. This means that banks that don't invest in customer first technology that facilitates immediacy, simplicity and 24/7 access to accounts and services will not survive in the new Digital Economy. This is particularly true in the GCC, where we have a tech savvy, highly mobile population which means an untapped source of new business for innovative Islamic banks.

Investing in the digitization of operations is not only vital for banks to survive and thrive; it is also becoming a moral obligation for Islamic banks. The reason being is that Fintech facilitates financial inclusion. It helps Islamic banks reach the unbanked and underbanked segments of Islamic countries, that is, people that do not have access to banking and finance services. By leveraging technology, the Islamic banking industry can transform not only the industry but also society and economies. Through banking technology, banks can provide the unbanked in Islamic countries with products and services through their mobile phones. Online banking allows segments of society that were previously not serviced, to take advantage of services such as microfinancing, bringing them into the financial system as a value added member of society and economic contributor.

Financial IT: Can you give us some hard numbers?

Esam Al Kheshnam: According to the International Data Corporation (IDC), a global market intelligence provider, by 2022 it is projected that over 60% of global GDP will be digitized and, although Islamic finance service providers face challenges integrating into the digital era, the transition to automation and digitization will create a more seamless effective and efficient business, and improve the customer experience, most notably in terms of online and mobile banking.

Financial IT: What does this mean for ITS in practice?

Esam Al Kheshnam: Banks are partnering with ITS to upgrade their core banking platforms to enhance their user experience, improve performance and reduce costs. However, a greater investment in technology is needed by Islamic banks in order to accelerate their sustainable growth and succeed in the Digital Economy. In the GCC we are witnessing extensive banking consolidation with the rate of Mergers and Acquisitions (M&A) progressively increasing in value over the last few years. From a technological standpoint this presents challenges. At ITS, our aim is to firstly merge new entities without interrupting customer services - and secondly to provide a strong IT infrastructure that supports the future strategic success of the bank.

Financial IT: Great. Can you give us specific examples?

Esam Al Kheshnam: ITS was recently the technology partner for the merger between Barwa Bank and the International Bank of Qatar (IBQ), a regional milestone merger being the first bank merger in Qatar's history. ITS implemented the ETHIX Core Banking System which supported the successful operational merger and transformed the new entity into a fully Shariah compliant financial powerhouse.

Financial IT: What product or service would you highlight?

Esam Al Kheshnam: ITS is partnering with banks as they navigate the new digital era in banking. The ETHIX Digital Suite, which is part of the ETHIX Core banking system, supports the delivery of a truly personalized digital banking experience with touch of a button secure and easy money movements and complete control over spending with innovative spending widgets.

About ITS

ITS is a global financial technology provider and market leading provider of innovative Shari'ah compliant IT solutions and services. The company has been established in Kuwait since 1981, ITS has 7 offices and numerous partners in the Middle East, Africa, East Asian regions, Commonwealth of Independent States (CIS), and the Caribbean, and has received numerous international awards for its ETHIX range which have been adopted by financial institutions worldwide.

Esam Al Kheshnam,
CEO of International Turnkey Systems (ITS) Group

Mr. Alkheshnam is a distinguished industry veteran with a career that spans more than 27 years in the fields of information technology and software solutions. Prior to his appointment in February 2017 as the Chief Executive Officer of International Turnkey Systems Group (ITS), Alkheshnam held numerous senior positions in the field. The most recent being head of the IT Strategic Planning Department at the Central Bank of Kuwait, where he worked closely with the nation's banks and financial institutions to elevate performance standards. During his career, Alkheshnam has been credited with several notable achievements, including the innovation and management of several advanced IT solutions for numerous renowned regional and international companies.

As CEO of ITS, Alkheshnam is defining a new vision for the Group as he further underscores the Company's position as a leading provider of quality IT solutions and services for the local, regional and international banking industry.

Alkheshnam holds a Bachelor's degree in Computer Engineering from the US, and a credential in General Management from Harvard Business School.

THE MOVE TO OPEN BANKING

IT IS NOT AN OPTION

An Interview with Mohammed Kateeb, Group Chairman & CEO of Path Solutions

Financial IT: You recently launched both a new vision and mission for Path Solutions, heralding a new era in digital and intelligent software. Can you tell us more about it?

Mohammed Kateeb: In the month of February 2020, we announced the availability of two sub-platforms, Path Digital and Path Intelligence which can bring tremendous value to our clients in meeting their digital and intelligence ambitions. Both set out an exciting plan spanning digital to the core solutions to help our clients in their digital transformation, while harnessing intelligent technologies like AI, Machine Learning and Big Data, delivering unprecedented value to our clients and their customers.

These two platforms are complementing our iMAL Open Architecture platform (OAP). This OAP provides banks with significantly greater ability to communicate and to collaborate with Fintechs and other protagonists. Open banking, which involves revolutionary change in financial services provides all with huge opportunities. We want to empower the banks so that they can provide innovative and attractive services to their customers.

Financial IT: Vision 2025 sets an exciting new direction for the company. What does this commitment involve and what are the steps to implementing this transformation programme?

Mohammed Kateeb: Currently, we have about 30% of our bank clients on our new OAP. In five years, we want to move all our clients onto the new platform. Of course, we are expanding the number of banks all the time. There are several elements included in our new vision. We help our clients to become more digital and to re-engineer their processes. Ultimately, human involvement with standard processes will be eliminated. Our bank clients will have greater ability to become, to operate as or to compete with branchless banks.

Financial IT: What about analytics and corporate intelligence?

Mohammed Kateeb: We give our bank clients greater ability to analyse the huge amounts of data that the banks already have about their customers. The ultimate aim is to create a digital bank which uses intelligence and analytics throughout the organization in order to make better decisions, to understand customers better and to develop more attractive products.

Financial IT: How do you perceive technology to be driving the evolution of intelligent banking?

Mohammed Kateeb: Artificial Intelligence and Big Data are having an impact on most industries – and not just the financial services. The successful Fintechs will be those that can use data more efficiently than traditional institutions. The successful financial services organizations will be those that can collect data from many different channels – including social media. Most obviously, this works for control of fraud. However, it is also relevant to wealth management and other aspects of financial services. Expect to hear a lot more about data analytics.

Financial IT: Tell us how financial institutions that are encumbered by large amounts of legacy technology will survive and thrive in the new world.

Mohammed Kateeb: In today's financial services industry, sticking with legacy technology that has been in situ for 30 or 40 years is a recipe for disaster. Institutions who are largely dependent on legacy technology need to surround that technology with new systems that meet the needs of today.

That is where we can help, with our new open API Digital platform. We can assist a bank with gathering data, integrating systems and gaining a holistic view of customers. When that customer walks into a branch, the bank should already know what it needs to know. If there is a suspicious transaction, that transaction should be flagged immediately. It should be possible for the bank to analyse huge amounts of data. Having done that, the bank should be able to develop products that are highly attractive to its customers.

In the new world, a bank that really wants to increase the number of customers can do so by engaging with people who are first time users of financial services. Almost everyone can be reached through his mobile phone. The race for financial inclusion is speeding up. The Fintechs and banks that best understand open banking are the organizations that are most likely to be among the winners.

path solutions
Powering Islamic Financial Markets

Known for being a key contributor to the region telecommunication, media and information technology industry, Kateeb carries 30 years of IT experience having served in various leadership positions driving organizations' innovation and transformation agendas prior to his current role. These range from being part of Microsoft's Middle East executive team, to advancing the development of next-generation software solutions and services that drive differentiation and measurable business value to keep pace with the new Islamic Fintech landscape and move ahead of competitors. Kateeb has an unparalleled experience and expertise in applied AI in financial services and assisting organizations to adapt to Fintech, as well as offering knowledge into cutting-edge financial technologies to keep organisations technologically current. His vision to unleash the power of AI was recently captured in an exclusive interview with IBS Intelligence. Kateeb is also mentoring at leading incubators and advises Fintech hubs on identifying, incubating and scaling new transformational businesses while utilizing emerging technologies such as Digital, AI, ML and Big Data. Kateeb is an internationally recognised Fintech speaker. He was more recently invited to speak at the Future Investment Initiative in Riyadh, the OIC High Level Public and Private Investment Conference in Istanbul, and the 2018 NASA Cross Industry Innovation Summit in Houston.

Kateeb currently serves as member of the Board of Trustees of IRTI, an affiliate of the Islamic Development Bank Group (IsDB) that focuses on developing a technology-enabled Islamic financial services sector leveraging state-of-the-art technology to mainstream Islamic economics and finance knowledge.

Red Hat

BANKING ON CLOUD IN 2020: BE BOLD TO BE AGILE & OPEN

The advent of low-cost cloud computing and the emergence of challenger banks has inspired a new type of competitor using innovation to attract customers in the financial services sector.

Digital-only banks built on modern technology are amassing large numbers of new customers, with those operating in the UK forecast to sign up 35 million customers globally by the second half of 2020, up from 13 million in September of last year.

They have an advantage in being unencumbered by legacy code and are able to go straight to a cloud-native set-up. Meanwhile the task of delivering intuitive, digital services is made difficult for traditional banks by the nature of their existing infrastructure being hard to change safely and quickly.

That's why banking leadership needs to be bold in 2020 and embrace some of the emerging technologies and ways of working. There are lots of options of cloud-native application development, hybrid cloud and open source tools that can be leveraged by banks to support new business models, as detailed below.

Moving to agile working

As well as embracing new technologies, financial firms are rethinking how they manage their culture, people and processes. 'Agile' with a capital A is an umbrella under which there are many methodologies, tools and techniques to simplify how we work and improve collaboration. While Agile has low barriers to entry, it is a mindset change and a commitment to a different style of work. It means accepting that the old way of planning development cycles and infrastructures isn't suited to the new world of ongoing business transformation. Galvanising an entire workforce into change can be a challenge, and may in fact need to start at the C-level. It can also be gradual – a small initial project can provide a feel for the benefits and help gain support across teams and the business at large.

A good place to start that can really move the needle is agile integration. An agile integration approach harnesses open APIs (application programming interfaces), distributed integration and containers to build, connect and manage applications faster and more easily. It provides a more efficient way to connect and manage heterogeneous data and devices that have proliferated throughout the organisation over decades. Agile integration provides a framework, both technical and organisational, to help reshape IT infrastructure. But it must be underscored by a coherent set of top-level goals to help determine which set of new capabilities will bring the greatest value to the overall functioning of the organisation.

Emirates NBD is a great example of a bank that has built a distributed private cloud platform with open API technologies. With a common foundation it provided access to cloud-native services for internal teams and as a result improved integration, collaboration and speed of development.

Microservices go big

One barrier to Agile is monolithic software – essentially large blocks of code that, as they grow, become harder to work on, to test, and change. Legacy business programs were made this way, but now enterprises are looking to break up monolithic software into modules or sub-systems that are easier to manage. This is why microservices has become a defacto way of writing software and building software architectures.

Continuing into 2020, emerging open source tools for microservices and cloud-native development like Quarkus and Istio present banks with an opportunity to modernise their platforms and integrate with third-party fintechs to create and co-create next-generation innovations. Quarkus is exciting in the financial services industry because it has the potential to support cloud-native microservices using Java. A Kubernetes-native Java stack, it provides rapid boot time and smaller

Tim Hooley,
Chief technologist, EMEA financial services, Red Hat

As chief technologist for financial services in EMEA at Red Hat, Tim provides strategic support to customers as they look to open source technologies to meet business transformation initiatives. He has a particular focus on open banking / open API finance, and the journey to open hybrid cloud. Tim moved to Red Hat from Goldman Sachs where he managed several digital transformation projects over the course of twenty years, which included the adoption of hybrid cloud, big data, AI and mobile. Tim holds a B.Eng, Special Engineering Programme, Brunel University, UK, and is a Chartered Management Accountant (CIMA, UK).

memory footprints, which make it well suited to short-lived containers, and can be applied to areas like open banking to help boost performance and usability of applications.

Another key development to watch is serverless, where your software runs in containers fully managed by a cloud provider. This helps developers deploy and run applications that will scale on demand – both up or down to zero – helping banks to be more responsive as well as lower costs.

Banking in the cloud

As the fastest moving companies win market share, technologies that support the journey to hybrid cloud, and cloud-native software development, are increasingly essential to the FS sector, as they provide the means for faster time to market for value-adding innovations.

A key question for banks is how to orchestrate and manage their cloud environment. With control and accountability so critical in financial services, having oversight of data and processes in the cloud is a number one consideration. They also need to choose the right level of independence and abstraction from underlying infrastructure as a balance between having control and accessing the features of different cloud service providers.

This is why having an open hybrid cloud strategy is so important. Open hybrid cloud means having a common interoperable layer that unifies on-premise, private cloud, and multiple public clouds. This gives businesses a central point of visibility and management, full ownership and control of data, and the ability to respond faster to changing regulation and customer demands.

Given this, banks should continue to prioritise the use of enterprise container platforms based on Kubernetes as this unifying layer. This enables portability and consistency in hybrid and multi-cloud environments, as well as greater flexibility to scale on demand. The likes of CYBG in the UK and BBVA in Spain are adopting this approach to accelerate time-to-innovation of new digital services.

The upshot is that companies that adopt microservices, containers and Kubernetes will be able to build modern applications that can then be run anywhere at scale, including their own data centres, private clouds and public clouds.

Collaboration + open source

The evolution from monolithic software to agile and microservices architectures has made it easier for developers to collaborate on a project, not only within an organisation but externally with partners and customers. In parallel, the increased use of open source in financial services means that people can work on software features together. So banks should look at how their relationship with various other players in the ecosystem can become more strategic. This applies to the EU's Payment Services Directive (PSD2) too – companies should see it as an opportunity to add value for the customer by working closely with partners and fintechs to deliver more innovative offerings.

We can also expect to see banks participating more in open source communities, contributing to the development of features and functionality to address real-world requirements. While in the early days the appeal of enterprise-grade open source was cost savings and freedom from vendor lock-in, now there is greater recognition of the rapid innovation generated by large global communities of developers working together towards common goals. Banks want in on this.

As an example, FINOS (the Fintech Open Source Foundation) recently announced a major open source contribution from Goldman Sachs to improve data exchange within financial services.

2020 is a great moment for banks to plug into a new mindset whilst embracing the new technologies at their disposal. Those who do will be in pole position to foster innovation and continuously adapt to changing conditions in this new decade.

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MIGRATING TO THE CLOUD

IT IS CRITICAL FOR THE FINANCIAL SECTOR AS WE HEAD INTO 2020

The banking and financial services industry is undergoing seismic change, with firms struggling to match the rapid rate of technology innovation and digital disruption, as well as an array of game-changing regulations such as the General Data Protection Regulation (GDPR) and the second Payment Services Directive (PSD2) coming into force. The age of the hyper connected, mobile-first customer has forced financial institutions to innovate in order to keep up with their agile, Cloud-native disruptors. However, legacy IT infrastructure continues to pose significant problems.

The changing landscape

Brick and mortar banks and even cash machines are fast vanishing from our streets, as consumers prefer the convenience of digital services. Over 66 per cent of British consumers now use online banking, and nearly 50 per cent using mobile banking – which is set to overtake high street branch visits in less than two years.[1] This is putting great pressure on traditional banks that are burdened with outdated IT systems. Nearly half of employees working in retail banking now point to legacy IT infrastructure as the most prominent barrier to the growth of their business, and the need to update is more urgent than ever before.2

Challenger banks today are born on the Cloud, and already inherit the cost, performance and efficiency benefits that traditional financial institutions lack. A new generation of mobile-only banks are leveraging the latest technology to personalise their services in a more engaging, cost-efficient way. If financial institutions are to compete with such innovative businesses, they must prioritise investment in Cloud services.

The urgent need for Cloud services

Storing all of a company's intelligence and information on in-house servers is no longer viable, due to the huge growth in data usage. Employees and consumers alike expect to have instant access to their personal data at any time, in the most secure environment possible.

Nevertheless, migrating to Cloud-based solutions is a complex task, particularly for banks with extensive legacy infrastructure, and hurdles are surely expected along the way. Rushing the costly and time-consuming nature of Cloud migration can cause severe disruption to customers. In the year running up to October 2019, the UK's regulator Financial Conduct Authority (FCA) reported that major banks suffered a huge 265 IT failures which prevented customers from making payments online.

A new wave of regulation has also shaken the establishment, with a view to better protect both consumers and businesses. Since the implementation of GDPR, organisations must collect data legally and protect it from misuse or face hefty fines – granting EU consumers more control over their personal data. According to EU regulators, the financial sector, more than any other industry, has incurred the most fines since its enforcement.3

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1 https://www.theguardian.com/business/2019/jul/01/mobile-banking-to-overtake-high-street-branch-visits-in-two-years
2 https://www.instapay.today/insight/legacy-technology-in-banking-a-real-issue-or-is-it-just-perception/
3 https://www.irishtimes.com/business/technology/financial-services-sector-most-frequently-fined-for-gdpr-breaches-1.4022493

John Spencer,
Chief Product Officer of Veridium

A seasoned IT executive with 30 years of experience in the software industry leading engineering teams, John Spencer's primary focus is the development of Veridium's biometric authentication product offerings, as well as looking into the future and detailing the company's product roadmap.

In addition, the deadline to comply with the Strong Customer Authentication (SCA) element of PSD2 is fast-approaching in March of this year.[4] The regulation aims to mitigate payment fraud, which reached a record 3,863,000 cases by June 2019, by stipulating an additional level of authentication on purchases over £28.[5] It has therefore never been more crucial for institutions to execute a full-scale migration to the Cloud to benefit from its innovative services, such as biometric authentication.

The Benefits

Cloud technology is widely being recognised as fundamental to businesses, however, when it comes to banking, only 30 per cent in the UK have made the Cloud transition.[6] The AWS marketplace, and similar service providers such as Google, offer an online platform for businesses to unlock a host of Cloud and other digital applications. Transitioning through these networks renders the process far simpler, as the Cloud is effectively brought to you.

AWS facilitates access to an abundance of innovative services, including multi factor biometric authentication to verify the identity of both employees and customers. This provides financial institutions with the highest level of security to prevent breaches and safeguard valuable data in the most seamless way. Such digital identification technologies can also aid firms in achieving regulatory compliance, for example with the SCA element of PSD2.

Furthermore, the vast computing power of Cloud-based software offers an array of benefits to businesses and customers alike. The centralised nature of Cloud data eliminates any latency issues that arise when computing tasks are processed off site, permitting the on-demand availability of resources. This means it is easier for a frictionless digital experience to be created, whilst producing cost and time efficiencies that translate into more effective workload management, increased flexibility and ultimately enhanced productivity.

Traditional institutions must abandon the burden of legacy IT infrastructure, and fast, if they are to cement their position as market leaders and avoid falling behind the influx of challenger banks. Cloud marketplaces such as AWS grant financial firms access to the innovative services needed to transform in line with the fast-evolving digital landscape – accelerating a company's speed to market and delivering the seamless, engaging experience that today's connected customer expects. Migrating to the Cloud offers an unrivalled opportunity to automate processes and strengthen security with services such a biometric authentication, allowing financial institutions to increase efficiencies whilst lowering costs.

Financial services companies are already achieving better business outcomes with such services, including high-performance grid computing, data analytics, as well as security transformation and regulatory compliance. Customer experience is now the North Star, and removing these technology barriers enables traditional financial institutions to focus on what truly matters for their business.

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[4] https://www.fca.org.uk/firms/strong-customer-authentication
[5] https://www.ons.gov.uk/aboutus/transparencyandgovernance/freedomofinformationfoi/fraud
[6] https://specialistbanking.co.uk/article-desc-7001_are-uk-banks-lagging-behind-when-it-comes-to-cloud-banking

Alex Schoonkind,
Head of Europe at Form3

FORM3 FINANCIAL CLOUD

THE ROAD TO REAL-TIME

SIMPLIFYING THE WAY FINTECHS ACCESS INSTANT PAYMENTS

Innovation in payments has advanced at pace, accelerated by the rise in digital 'everything' and a culture of instant gratification, along with new initiatives like Open Banking and PSD2. The payments market has opened up to new players and new pathways for consumers and businesses alike to access and use payment services.

But, for neobanks, Fintechs and other regulated financial institutions where instant payments are crucial, participation in clearing and settlement schemes has been a challenge. Previously, certain schemes would be reserved for banks and credit institutions only. This normally leaves non-bank financial institutions with the indirect participation option only, which means that they rely on the same legacy technology that banks are struggling with themselves.

Form3's cloud native platform enables customers to connect seamlessly to clearing and settlement schemes across Europe. They offer this in a variety of different models, as the license held by their customers dictates how they can participate. For example, only credit institutions can be direct settling participants of SEPA schemes.

However, for those who are not credit institutions, Form3 has developed a unique first in market model whereby Fintechs send and receive their instant payments directly with the scheme, and a Form3 partner bank provides Euro liquidity and manages settlement on their behalf.

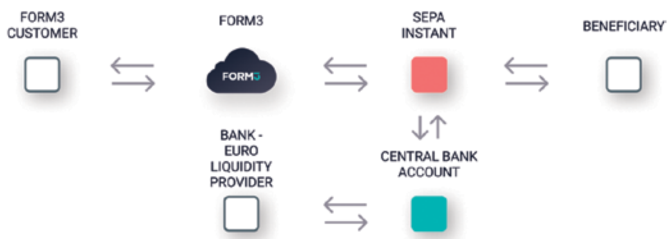
For the first time, connecting Fintechs to sterling and euro real-time payment schemes without the need for a settlement account is possible.

The Benefits of a Bank, Without Becoming a Bank

For non-bank Financial Institutions, Form3's DCNSP model signifies an important step in the democratisation of the payments landscape. It allows them to fully benefit from real-time payment processing such as 24/7 non-stop service, end-to-end processing in under 10 seconds and pan-European reach, and to optimally leverage these capabilities towards their customers.

Nevertheless, even for licensed credit institutions, entering a new market is complex, with many different moving parts. The DCNSP scheme participation can be a very welcome stepping-stone and/or strategic decision, both from a technological/infrastructure standpoint, as well as a liquidity management one.

The Form3 Access Model (DCNSP)
Directly Connected Non-Settling (Payment Scheme) Participant payments



About Form3

Founded in 2016 by four banking and technology leaders, Form3 has grown to become one of the leading cloud-native, payments platform providers to financial institutions globally. Their mission is to make payments faster, easier and more cost effective for the global financial community. They achieve this by leveraging the best micro-services technology and API's along with decades of banking and payments expertise to enable global businesses to provide real-time, direct payment services to their customers via a single API.
By removing the burden of maintaining complex and expensive infrastructure, customers can focus on delivering new propositions faster, improving the service and experience to their users.

www.form3.tech

OPEN BANKING

DISCUSSION OF CHANGING THE NAME MISSES THE POINT

Open banking has now become a global movement so much so that it is moving to its next phase. This is not because we have completed the first phase of open banking. Rather, it is because financial institutions, Fintechs and regulators and – most importantly – other sectors realise the power of consumer data and of collaborative innovation to create products and services for the consumer, such as open insurance.

A review conducted in 2018 by a private sector advisory committee tasked with recommending the steps to enable open banking in Canada proposed to change the term open banking to consumer directed finance, according to a Financial Post article. This name change was supported by a Financial Post poll where consumers did not recognise or know what open banking was and, if anything, left them concerned as the name "leaves them with the impression that their banking information would be laid out in the open, with little consideration for personal privacy rights." Proposing this name change does not take into consideration global acceptance of the term and the poll does not truly reflect other financial terms used for many years without the general population knowing what they truly mean.

Asking people off the street to answer what open banking is or if they heard of it is irrelevant because the consumer wouldn't know and may never know. There are countless financial terms like BACS, CHAPS, SWIFT, GDPR, Faster Payments, treasury bonds, S&P 500, etc. that have made a substantial impact to consumers for many years – and yet a poll would most likely show that consumers are unaware of these terms. We don't change the names of these terms because they are not at the forefront of consumer interaction. Most consumers do not care what these things are. They care about the products and services that will get John to send money to Amy efficiently and safely. They care about their retirement being there for them when the time comes. They care about using a credit card in the UK just the same as in Nigeria and not paying more for it.

To reiterate, open banking is NOT a direct consumer product or a service. It is a global movement in the financial sector aimed at "encouraging" banks to share their data under the pillars of open banking. The pillars of open banking are overarching regulations, common data standards and unprecedented collaboration between financial institutions, regulators and Fintechs but at the heart of it is the consumer. Open banking provides the consumer the tools to take control of their data to seek products and services that leverage that data to make better financial decisions. In a recent publication titled Consumers Surprising View on the Future of Banking, a poll was conducted that showed that consumers are much more open minded about using Fintechs for payments – so the argument that consumers trust banks more is not necessarily true.

What is more relevant than a name change is for regulators to determine that banks are now required to work collaboratively to share their open and closed data in order for approved Fintechs to create products and services that will directly impact social and financial inclusion. Now, if by consumer directed finance, we mean the above as a strong statement to the banks that their efforts must now be to share their data under consumer consent, then this new name or any other name would seem fine. But to change the name because consumers do not know what it is, or means is almost a distraction to tackle the real challenges of reshaping the financial sector.

The world knows what open banking is and is moving towards open finance and eventually open data. To further support the importance of the movement and less on the name, France refers to it as l'open banking. In Latin America, it is either referred to open banking or banca abierta which is its direct translation. It has become very clear that consumer data is the most important asset at the moment – and that consumer behaviour will drive this movement even further. The focus should be on tackling the threats to slow down this movement and instead nourish open collaborative innovation through shared data. The consumer unknowingly wants open banking, and we will deliver it to them safely and efficiently through global collaborative innovation.

TWO YEARS AFTER THE ARRIVAL OF OPEN BANKING...

... THE OPPORTUNITIES AND DISRUPTION WILL REMAIN HUGE

Interview with Stefano Vacinno, CEO at Yapily

Financial IT: What do you see as major trends this year in the open banking space?

Stefano Vacinno: Open banking has gained huge momentum two years on from its initial launch, opening doors to a host of opportunities. In 2020 we will see a smoother payments flow and more secure use of data, driven by the growth of products built by Payments Information Service Providers (PISPs)

Payments through open banking will begin to bypass card payments as the most popular way to pay. This will present a challenge to incumbent players, and you can already see – with the recent acquisition of Plaid by Visa – there will be a huge amount of disruption in this space.

This growth will be fuelled by merchants and service providers eager to access greater flexibility and cost savings, as card payments usually take a percentage of any payment made online. With open banking, fees are a fraction of the cost, bringing hefty savings to merchants and end consumers.

Growth will also be fuelled by the demand for a smoother payment experience. With two-factor authentication being rolled out this year – as mandated by PSD2 – paying by card will have an extra layer of friction. This will cause a high barrier for retailers and their customers, driving adoption for open banking payments due to its nature of being seamless and user-friendly.

Payments will also be more secure, because retailers and businesses will no longer need to hold card details to take payments. This will mean data breaches with customer data such as British Airways will eventually become a thing of the past.

Financial IT: How does Yapily support the concept of open finance and help its clients to solve the issues?

Stefano Vacinno: Open banking largely concerned itself with B2C payments data, driven by screen-scraping budgeting apps. While this accelerated adoption, in many cases, consumers may not have been aware of open banking and the issues it could solve.

Open finance looks beyond retail banking. We're working with customers and partners on including data from mortgage, savings, insurance and pension accounts. We're platform agnostic so we can support and process more types of data, presenting more opportunities to enhance our customer's products. We support our customers, powering applications behind the scenes, enabling them to own their branded user journey. We provide quality tools and technical possibilities for customers to build the best product, and user experience, they can.

Financial IT: What is the Unique Selling Proposition of Yapily for the customers? Are there any rival products in the market?

Stefano Vacinno: There are a few rivals out there, particularly in other international markets. But what we believe sets us apart is our approach. We focus on high quality open connectivity and execution and, because of that, we're used by some of the world's biggest companies and regulatory bodies.

We're also driven by privacy. Our objective lies in powering a seamless journey for our clients behind the scenes, being completely invisible to the consumer, without ever compromising on security.

Our approach is taking a trusted advisor role, providing the infrastructure for companies to build personalised, open finance-based products.

Financial IT: Please give us a real-life example of how your technology is used.

Stefano Vacinno: We work across a range of lenders, payments and personal finance management (PFM) providers. We are the connectivity partner for two well-known accounting software providers, connecting our API seamlessly within the platform that allows access to European bank accounts. These provide our clients with the ability to pull the transaction history from their customers, giving them real-time visibility over cash flow.

Accounting software providers are now testing how open banking can streamline payments for invoice automation which will significantly improve speed of access to funds.

Financial IT: What is your strategy for the next 2-3 years?

Stefano Vacinno: With one million customers now using open banking, doubling in the past six months, this year will see a mass adoption of open banking. We also expect the open finance revolution to spill over into new countries and markets.

We know of at least 51 countries working to introduce their own open banking positions, and we think, due to our experience, we'll be best placed to take advantage of this. This will be a huge growth opportunity for us, as well as providing more ways in which we can support our clients' global aspirations.

YAPILY

Yapily is an enterprise connectivity platform, enabling companies to seamlessly access users' financial data. In a new era of financial services, Yapily empowers people around the world to receive faster, affordable and personalised products. Through Yapily's API, companies can plug in 250,000,000 bank accounts into their products. The company has raised $5.4m in funding to date. Over the last 6 months monthly recurring revenue has grown over 500%.

HOW **BANKINGBLOCKS** BRIDGES THE GAP – A WHOLESALE BANKING ENABLER

Bankingblocks' mission is to become the first enabler to service the pan-European requirements of every Fintech and neo-bank (HUBs) in Europe. In doing so, Bankingblocks should become the leading provider of wholesale banking services to the HUBs.

Modernization of technology over the past 10 years has (and continues to) put significant pressure on traditional banks and the longevity of historical revenue models. Banks are under immediate and increasing – both regulatory and market driven – pressures to overhaul and upgrade their capabilities and underlying technical infrastructure. The grim alternative is to face significant penalties (regulatory impact) and loss of business (market impact).

These competing pressures, are similar in concept – in that they require improved technology - but they place significantly different requirements on banks. The technical improvements required to meet regulatory pressure is entirely different from immediate market-driven technology demands.

Bankingblocks is a new alternative to traditional banks, building local banking and payment services across all primary European markets. We understand the needs and barriers facing HUBs (fintech neo-banks) in a continuingly digitized economy and is developing a modular, multi-jurisdictional banking and payments service through a single contract and API.

The company was launched in 2019 to tackle the regulatory and market changes that impede non-banks from capitalizing on the booming Fintech industry. Bankingblocks has worked hard to secure the regulatory licensing, network memberships, scheme memberships and best-in-class technology to deliver the services the Fintech industry needs but cannot gain access to.

HUBs no longer need access to traditional banks, thanks to the offerings of Bankingblocks, which include:

- Current Account Issuance: to all underlying neo-bank customers (allowing HUBS to move from pooled e-money facilities with customer reference ledgers)
- Multi-currency Accounts: providing true, multicurrency Current Accounts in 29 end-to-end currencies

Bankingblocks

Daria Rippingale,
CEO,
Bankingblocks

Daria is Chief Executive Officer at Bankingblocks, a European wholesale banking and payment provider, serving global fintech and payment companies. After joining the world of eCommerce in 2004, Daria quickly developed a keen interest in online business and website monetisation.
In 2007, Daria began working as Marketing Executive of a Brisbane-based international payment processor, where she gained extensive experience in offshore payment processing, specifically in acquirer sourcing and management. In 2009, Daria joined an Australian PSP in the role of Sales and Business Development Manager. Within three years she managed to grow the company's overall merchant base by over 400%! In 2012, Daria was promoted to Chief Executive Officer and has led the company's expansion over multiple continents, securing its regulatory status and licensing to become the direct acquirer and fully passported payment institution that it is today. Besides that, she also attained a global network of financial institutions and banks. Her experience and expertise inspired her to address the regulatory problems that the fintech industry faces, as well as deliver unified payment and banking solutions to companies all over the world.

- International, multi-currency transfers: Bankingblocks is a participant member of SEPA and Target 2, and a direct member of SWIFT with its own, international bank SWIFT CODE and intermediary banking relationships allowing the direct, currency-to-currency transfer of funds for each Current Account holder worldwide without the need for currency conversion on third party liquidity providers
- Integrated acquiring and alternative payment services, allowing for real-time account loading via multiple sources (payment schemes, banking networks, alternative payments) and access to alternative international payment rails
- Integrated multi-BIN card issuing services: Bankingblocks offers true Current Account services to all underlying customers, along with integrated card-issuing facilities that allow HUBS to provide true debit-card services, prepaid services and access to credit-card BINS for approved partners
- Full-service regulatory and risk management services: Bankingblocks is a European regulated financial institution that has been purpose built to provide back-end regulatory management, KYC compliance and transactional risk (including AML management services) for HUBs and neo-banks, removing their need to provide in-house management of these services to appease partner banks
- Direct, modular technical integration and implementation services for existing and new HUBs, allowing HUBs to integrate quickly and provision the services their customers need at the pace they are prepared for
- Sub-licensing services for HUBs looking to increase their cash-management capabilities via the Bankingblocks license authorisations.

Bankingblocks is launching its services in the European region to take advantage of the cross-jurisdictional regulatory landscape and highly fragmented, domestically focused nature of the current banking and financial services markets. We made the strategic decision to operate as a fully-authorised Payment Institution with it license passported across the EEA so as to fully benefit from the cash management capabilities and non-credit issuing services provision of financial products to HUBs and in Europe, as intended by the financial regulation.

Bankingblocks has significant opportunities to become the leading provider of alternative banking services to the growing and underserviced Fintech industry. To increase the value and service offering, we plan on opening local representative offices in primary markets across Europe for the provision of local IBANs in more markets, in addition to becoming a direct issuing scheme member (currently direct acquiring scheme member) and gaining direct access to UK domestic clearing networks (BACS, CHAPS, UKFPS) in order to provide a balance between the best products and the lowest possible cost banking services for HUBs targeting both the European and (post-Brexit) UK markets.

Today, Bankingblocks is licensed and approved to offer multi-currency Current Accounts, international SWIFT and domestic SEPA payments, provision prepaid and debit cards connected to individual accounts, provide direct card-acquiring services (Mastercard, Visa, Carte Bancaire, Amex, JCB), provide sub-licensing services to approved unlicensed institutions and more.

LOOKING FORWARD: TOP 8 FRAUD TRENDS FOR 2020

Looking Back: 2019

Fraud discussions circulating throughout 2019 in the UK were in large part focused around Authorised Push Payment (APP) Fraud, with the Contingent Reimbursement Model (CRM) coming into force and disagreements about future funding pushed into 2020. At this point, we've yet to see if the CRM is making any ti-difference to fraud levels over the benefits to consumers.

The recent Treasury Committee report provided varying recommendations, but .but it is unlikely that many of its recommendations will be implemented, notably the blanket 24-hour delay on new payments nor retrospective refunds. This is because the first would have a negative impact on competition and innovation in the payments space, and the second would take valuable resources away from solving the problem.

The other significant theme during 2019was PSD2. The September 14 deadline was something of an anti-climax with enforcement of SCA for e-comm pushed into 2021. However, going with the EBA's recent December opinion, we will likely end up with the changes in occurring in September/October 2020 to avoid the key online shopping dates and the income this generates. 2020 will continue to be dominated by PSD2.

Moving to the U.S., 2019 was all about real-time payments, with Zelle, Venmo, Real Time Payments (RTP) from The Clearing House and FedNow in the future. As in the UK, there is also a trend to authorised frauds. Social engineering is impacting across payment types, with similar elements to the UK for Zelle. However, Business Email Compromise (BEC) fraud is trend massively impacting businesses and corporations. With cases as high as $29 million and the use of deep fake voices behind some e successful attempts, it's likely this will continue.

The other key trend in the U.S. is synthetic identity fraud. For the uninitiated, this is when a real name is mixed with a new address and added to an existing credit account. The ease of undertaking this in the U.S. has made this a huge issue and one that has been given legitimacy by credit repair firms.

The Top 8: 2020 Fraud Trend Predictions

1. ***APP and the CRM will continue to be a big issue in the UK.*** The Confirmation of Payee (COP) solutions will be delivered, probably a little late or in the case of Open Banking, on time but with a 'managed rollout.' This likely means fraudsters will slightly alter their methods, rather than producing a large reduction in losses. 2020 will also see an agreement to funding the "no blame" scenarios and the CRM will become a defacto regulation in the UKand eventually becoming law, although that's more likely to be 2021, with many small organisations joining in Q1 and Q2. Hopefully the funding agreement will help align the incentives for preventing fraud across the ecosystem.
2. ***Authorised fraud, via social engineering, will continue to increase in all jurisdictions.*** We will see banks take the view that even if they are not liable for the fraud, they will be active in investments to prevent it and will refund in many cases, as we see in the U.S. market.
3. ***This leads to a related theme we'll see trending across the globe: fraud and AML convergence.*** This isn't about corporate structures, but more about viewing these as more linked than previously and bringing real time to AML. Real-time inbound payment profiling and interdiction to help stop the flow of fraudulent monies, such as

Robert Tharle,
Fraud & Authentication Management Subject Matter Expert
NICE Actimize

Rob Tharle, Fraud & Authentication Subject Matter Expert, NICE Actimize EMEA, is responsible for providing thought leadership on industry trends, challenges and opportunities. Prior to joining NICE Actimize in 2019, he worked for 17 years in a number of Risk Management and Fraud Prevention roles at both Natwest/RBS and TSB. During that time, Tharle gained extensive experience with the technologies and design of fraud prevention and detection systems including application fraud, Apple and Google Pay, online and mobile banking.

BEC moving out of the first mule, will start to happen in 2020. This is a must in the UK due to the CRM, but South Africa and other countries are also on a path to this.

4. ***PSD2 and Open Banking will continue as a key theme.*** Following an initial flurry of activity as the first real rollout of SCA for eComm starts, this will mainly see SMS One Time Passcodes (OTPs), although we will see some app-based authentication and a move to biometric authentication later in the year.

   Open Banking will expand, though slowly and won't be restricted to Europe with both regulatory and business-driven developments across the globe. Fraudsters will likely exploit this, including using general customer confusion as a social engineering hook. This will show up as more asymmetry between T1 and T2 and FinTechs in terms of systems and overall fraud prevention capabilities.

5. ***There will be a move to Card Not Present (CNP fraud), despite PSD2 changes.*** CNP will continue to rise, as this is the final opportunity for fraudsters to abuse ecommerce with no authentication in Europe. With the EU-wide mandate for 3DS 2x in September, we'll see increased net losses for issuers as more transactions are secure. It's likely we will see something similar as U.S. merchants also take up 3DS2.2 to combat increases as Europe secures towards the end of the year.

   Growth may slow, but SIM Swapping and Porting will continue to rise as SMS OTPs come in for card transactions. I expect there will be a further rise in SIM Swaps and Porting to undertake ACTO.

6. ***Identity theft and synthetic ID fraud will continue to rise, exploiting the lack of identity infrastructure and increased levels of authentication brought in by PSD2 in Europe.*** This will be across all types of fraud, as it protects the fraudsters compared to first-party fraud and results in larger returns. This could be heavily felt in the move to increased POS lending, combining both CNP and Synthetic ID frauds and exploiting this area of rapid growth.

7. ***New services such as Request to Pay (RtP)/Request for Payment (RfP) launching in the UK and U.S. are likely to be abused.*** Voice Banking such as Alexa, chatbots, messaging apps and IOT payments will all have an effect. By providing more channels for social engineering and increasing customer confusion, this also impacts the fraud profiling capability by increasing the attack surface and the volume of data to be profiled.

8. ***Finally, old favourites such as cheque fraud and direct debit refunds will also see an increase in fraud.*** Cheque fraud is on the rise in both the UK and the U.S., exploiting changes to processing such as image clearing and remote deposit. This fraud also exploits the siloed nature of cheques/checks and the lack of investment compared to higher growth, genuine customer channels.

To combat these threats, financial services firms should take a layered approach to tackling fraud and wider financial crime implications by investing in technology that can help them build out a fraud hub. Linking all customer transactions together, and enriching them with the best external endpoint data, will improve customer profiles and allow them to make intelligent, risk- based decisions.

SECURITY VS. FRICTION: IMPROVING FRAUD DETECTION TO RAISE THE PSD2 PAYMENT THRESHOLD

Over recent years, great strides have been made in terms of improving the online shopping experience. New features, like one click payments, have made it easier than ever to sail through the check out; often without even needing to enter a password or card details with options such as Apple Pay or Google Wallet. This has been great for customers, card issuers and merchants alike, as the smoother the customer journey is, the more likely it is that a transaction will go through. This trend is very much evident when considering eCommerce volumes – research from RSA Security shows that transactions volumes more than doubled between 2019 and 2018 during Black Friday and Cyber Monday in the US.

But it's not all good news. Online payment fraud has continued to rise, with losses against

UK retailers totalling an estimated £265.1 million in 2018, a rise of 29 per cent on the previous year. As a result, the new Payment Services Directive (PSD2) includes a requirement for Strong Customer Authentication (SCA), to further secure payments. which in turn forces card issuers into adding layers of complexity and friction to the user experience. Ultimately, banks find themselves between a rock and a hard place, and the challenge is not an easy one: how can banks today find a way to secure payments and ensure PSD2 compliance, while still minimising disruption to the user experience?

Raising the threshold

In order to understand the vice banks are in, we must first take a closer look at the requirements of PSD2 and, more specifically, the requirements of SCA. The new rules dictate that payments made above €30 should require two of the following three elements: something the customer knows, something the customer has, or something the customer is. This low payment threshold is a real sticking point, as it adds an extra step to the transaction process, frustrating customers and potentially leading them to abandon their shopping baskets due to the additional hoops they must now go through – a recent study showed 74 per cent of shoppers have abandoned an online purchase in the past six months due to a bad checkout experience.

However, it is possible for banks to raise this threshold, preserving the frictionless experience as customers can spend more before the SCA checks are needed. The threshold can be raised to €100, €250 or even €500, just as long as the bank's overall card payment fraud rates do not exceed 0.13%, 0.06% or 0.01% respectively. This creates a real market incentive for banks to be as effective as possible at fraud detection, as consumers will favour card issuers that cause the smallest disruption to their online experience. However, while the reasoning behind improving fraud detection may be a no-brainer for banks, the reality of achieving it is not so simple.

Barriers along the way

The number of digital payments being made by consumers and business has skyrocketed in recent years, when compared to physical payments. Online and mobile shopping, and banking, have created numerous benefits for businesses, consumers and banks but it has also widened the attack surface for would-be fraudsters, creating new digital risks that need to be managed. These conditions mean fraud teams are continually operating in fire-fighting mode – trying to make sense of and prioritise the barrage of threat alerts they receive, with little time or resource left over to proactively improve their fraud detection ratios.

Consumers are also using more digital services than ever before, making payments across multiple devices – many of which may not have the most up-to-date, secure version of an application. These digital risks are increasingly difficult to manage, requiring banks to think innovatively about authentication strategies and find solutions that address all of these potential fraud avenues. Having a plan in place is crucial for banks to ensure they are not just PSD2 compliant, but also to reduce fraud rates and ensure the least possible disruption for customers.

Daniel Cohen,
Director of Fraud and Risk Intelligence, RSA Security

Daniel Cohen is Director of Fraud and Risk Intelligence at RSA Security, where he has worked since 2011. In his role, Daniel serves some of the world's largest financial institutions with his deep insight and expert knowledge of the cybercrime landscape.

How can it be done?

Reducing fraud ratios to strike the delicate balance between convenience, security and compliance is only effective if the decision to further authenticate a payment is accurate. In order to do this, context is everything and a common theme we are seeing in the industry is the greater reliance on data to increase accuracy of machine prediction and automated actions. If once fraud systems were reactive—the bank experiences fraud at 4AM, and reactively decides to block all transactions at 4AM—today, antifraud systems leverage enormous amounts of data to proactively predict when a transaction is fraud in real-time. And this is true not only for prediction, but for analysis and investigation too; with technologies like graph analytics, finding relationships between objects in "piles" of data becomes much easier and significantly hastens investigation activities.

As such, in order to be able to reach an accurate prediction on if a transaction is likely to be fraudulent, banks also need as much information on the cardholder as possible. EMV 3D-Secure (3DS), an authentication protocol governed by the card networks, provides banks with this information, so they can then feed into machine-learning systems and make a context-based decision on if a payment is fraudulent. Merchants leveraging the 3DS ecosystem may pass to the issuer over 100 data elements to assist in the authentication and authorisation of the transactions and in this way reduce friction levels significantly. The protocol also allows banks to work with the merchant to challenge the payment, and require a second step of authentication. The beauty of EMV 3DS is that, unlike its predecessor, it also tackles the customer experience issue, as there is no redirect function. Payment verification all takes place within the merchant ecosystem, reducing noise and friction from the user experience while also helping banks to spot fraud quickly and accurately.

Moving forward

Though the FCA may currently be granting relief from sanctions for banks with a plan to become PSD2 compliant, this won't last much longer. PSD2 is very much in effect, and businesses across the payment ecosystem need to get up to speed sooner rather than later. Simply having a plan won't be enough anymore; banks need a clear strategy to help better manage the increasing digital risks that hinder fraud detection, as this is the only way to reduce the extra noise and friction the SCA regulation brings to online transactions.

THE DOCUSIGN AGREEMENT: ROBUST, PAPERLESS, SECURE

An interview with Andy Champion, Vice President, Enterprise Sales EMEA at DocuSign

Financial IT: What does DocuSign do?

Andy Champion: DocuSign helps large and small organisations to prepare, sign, act on and manage agreements. If you think about agreements, you will find them at the heart of every business. They touch each area, starting from formal agreements between two enterprises, or less formal deals between employees and employers. So, whether you are in sales, HR or procurement, an agreement is in the centre of every business function. DocuSign helps organisations take agreements from the world of paper and emails into a digital platform. We drive the digital agenda and help clients become much more efficient and effective, through the use of eSignature and other contract management technology.

Financial IT: Why does the adoption of e-signatures in the financial services industry matter? What are the key benefits of e-signatures for financial institutions and their clients?

Andy Champion: The digital transformation agenda helps both financial organisations and their customers. Speed is absolutely "the currency of the day", and the world where speed matters is starting to change the landscape of financial services. What matters for a personal or small/medium business customer of a bank is the speed within which, for example their loan can be secured, or their account opened. Reducing the operational time and improving customer experience are in the heart of DocuSign's digital transformation agenda. Santander is a fantastic example of that in the corporate banking area.

Financial IT: Please tell us how DocuSign helped Santander to digitally transform its services

Andy Champion: Santander is very large organisation which saw digital adoption as a way to simplify the business loan onboarding purpose. Before we became involved, the process took on average 12 days, from application to opening an account. For many small/medium businesses, that is far too long, and Santander UK recognised this as an opportunity to differentiate and outcompete in this area.

They wanted to take paper out of the process of registering a new business account. In particular, to consolidate 39 PDF forms sitting across its product range into one dynamic form, delivered online. We helped them develop an onboarding solution that was totally digital. One benefit was that customer experience was significantly improved.

At the heart of the solution that we offered to Santander is an API based model. For example, CLM from the DocuSign Agreement Cloud pre-fills certain fields within the aforementioned editable form using APIs, and allows it to be completed and signed online, without the need to print and return to the branch.

We also have the capacity to check ID remotely, which is a useful alternative to the clients having to produce ID at a bank branch.

Financial IT: What are the key trends in the Fintech space that you see in 2020?

Andy Champion: The banking industry is really being shaken up by digital banks. The consumers are driving that trend because of the speed and efficiency they require. On the top of this, all the protagonists are quite sensitive to data privacy and security.

I also expect that Artificial Intelligence (AI) and blockchain will become more important. AI already plays a key role in identifying anomalies in behaviour that point to fraudulent transactions.

Financial IT: Who do you see as the competition? What is your edge?

Andy Champion: Our edge is that we enable banks to engender trust and, at the same time, meet customers' expectations about speed and service. Our solutions ensure the security that financial institutions require.

DocuSign®

Andy Champion,
Vice President, Enterprise Sales EMEA, DocuSign

HOW TO SOLVE THE ACCOUNTANTS' PROBLEM(S)

A large part of the answer is to involve them in the development of new software solutions.

An interview with JF Sullivan, Chief Product Officer for Iris Software Group, and Nick Gregory, Chief Marketing Manager for IRIS Software Group

JF Sullivan,
Chief Product Officer,
Iris Software Group

Financial IT: Please introduce us to your new IRIS Elements platform. What are the new features and capabilities? What makes it different from the other solutions?

JF Sullivan: Xero, Taxfiler and others are well known as excellent bookkeeping solutions. Along with Sage, IRIS is one of the leading providers of a fully integrated suite of solutions to accounting practices.

The problem that we solve is the accountants' lack of control. Often their clients are using a suite of bookkeeping and other solutions that are integrated within themselves – but not linked to any other data management solutions. That is a problem for the accountants, because in these situations they do not control the clients, and cannot easily link their own systems. In other words, the accountants find themselves in situations where they have invested large amounts of money in state-of-art solutions which cannot communicate with those of their clients.

At IRIS, we decided to take a different approach. We built an adaptive platform called IRIS Elements. It is adaptive in that can be moulded to work with the systems of any business – whether those systems come from IRIS or from any other supplier. IRIS Elements essentially turns a disparate group of solutions from other suppliers into a fully integrated suite of products that work together.

To market the product we are engaging directly with our customers – the 20,000 accountants who use our technology –

Nick Gregory,
Chief Marketing Manager,
IRIS Software Group

rather than spending large amounts of money on advertising. Our customers tell us what they need and we develop our solutions accordingly. Our development team is building the new AML services of IRIS Elements in conjunction with two of our larger customers.

Financial IT: How does that work in practice?

JF Sullivan: We serve a huge community of accountants. From this group we build a Customer Advisory Board, whose members are either interested in our opinion or in giving their own to us. We circulate the ideas monthly with this group. Once the group has an idea that they like, and have voted for the additional services, the interested customers will sit and work with our team on the new product. Once we have a prototype version of the product, these people will start using the product. This is important, because it enables us to define the onboarding process. Once the group decides the product is ready, we can introduce it to a wider community. We ensure that the new product has the functionality and features that the customers really need.

Financial IT: Who are the customers who are most interested in IRIS Elements?

Nick Gregory: The customers are diverse. A good example is Debbie Warburton, a customer of 32 years. Her practice, GW and Co., is in Cornwall. She was dissatisfied with the products and solutions that had been available. However, we took her through the key features of IRIS Elements and she has re-engaged with us.

Another example is Kevin Whitehouse at Primary Entry. His practice is based on IRIS as well, but he also offers advisory services. He is looking to monetize his compliance customers through offering them high value advisory services. Accordingly, he is looking to IRIS Elements to be better able to work his data – and, in doing so, to get a greater understanding of his customer base and their needs.

Those are two examples of visionary customers whose ambitions for where they had wanted to be were not being fulfilled by existing software solutions.

Financial IT: In general terms, where are you on the road towards the 'hard' launch of IRIS Elements?

JF Sullivan: The milestones are internal, and relate to the numbers of people in the Customer Advisory Board. We have received feedback from 23 customers so far – but need the contributions from three times that number before we are really in a position to promote IRIS Elements widely.

Financial IT: What do you see as the key trends in bookkeeping and accountancy?

JF Sullivan: We see the relationship between two those are evolving. Bookkeeping has traditionally been seen as a key offering. That is why accountants have invested so much in their own technologies or in products such as Quickbooks and Sage. However, many accountants are, as noted above, looking to offer higher value added services to their clients. We think that ultimately most accountants will see themselves primarily as deliverers of value added services. At that time, bookkeeping will simply be a basic part of the services for which the accountants charge little, if anything.

Nick Gregory: Every aspect of what the accountants offer will be automated. There will be changes in staffing and skill sets – as manual processes are still very common. Processes will have to be re-engineered as the accountants move towards higher value added services. Digital records will be accessible by clients and third party vendors through the Cloud. The time that will be needed to analyse data properly will be much less than today.

IRIS Software Group exists to simplify the lives of Britain's businesses by helping create greater operational accuracy and efficiencies in everyday tasks and look forward with confidence.

Financial IT
Innovations in FinTech

UX IS DRIVING US ECOMMERCE: WHY RETAILERS MUST CREATE AN EXCELLENT UX

Both payments and ecommerce are very dynamic industries with emerging and disruptive technologies constantly changing the way users and businesses operate. And as new technologies and new regulations hit the market, ecommerce continues to evolve and present opportunities for online businesses.

With that said we'll take a closer look at the trends that will affect North America in the coming months and our advice for online businesses in the region, looking to grow.

The key trends affecting ecommerce in North America

Over the past two years there has been a huge amount of consolidation in the market. For example, FIS acquired Worldpay/Vantiv, Fiserv acquired FirstData and GlobalPayments merged with TSYS. Companies are trying to gain competitive advantage by exploiting synergies gained through mergers and acquisitions (M&A) that creates a new dynamic for the North America region and forces payments companies to re-evaluate their regional strategy.

That said, the trend of technological disruption will continue. With more progress and initiatives, we will see faster/real-time payments, and more social/conversational commerce and blockchain technology.

Cross-border payments will continue to play an important role as North American based companies continue to expand internationally and in an efficient and cost-effective manner. However, increasing international regulation surrounding data protection and storage will continue to make this more difficult for businesses.

And, as always, user experience (UX) will drive much of these technological changes, which is why it's important to always have our fingers on the pulse of the consumer.

Opportunities for growth

Firstly, it is important that businesses take ownership of their data. Data is like a gym membership – everybody has one, but it is those that use it regularly who get the most out of it. Effective use of payments data can massively increase revenues, decrease costs, and improve the UX. I would recommend taking advantage of your partners' expertise as they are usually well equipped for this purpose.

Also, it is essential to understand your customer. There are numerous examples of companies that go international without taking into account local preferences. Consumers from different regions, different demographics, and in different industries demand a unique UX. Therefore, it is essential you match your offering to the UX, otherwise you might sacrifice revenue and lose potential long-term customers.

Last but not least, embrace change. As I mentioned, ecommerce and payments are dynamic industries, and those that are on the forefront of change stand to reap the most benefit. Businesses need to constantly familiarize themselves on emerging trends and work with partners to make use of new technologies that establish a better connection with their consumers.

Challenges to growth

I always say a challenge is just an opportunity in disguise. That said, the two major challenges facing online businesses are understanding the consumer and embracing change. These need to be tackled together. For example, a key challenge for technology companies, payment powerhouses and ambitious retailers is to improve the end-user experience.

Ideally, you want to get to the point where payments made via non-web applications (messaging apps, voice-activated technologies, etc.) are as seamless as they are via the web. To achieve this, a business must understand both what the consumer demands are in each region, and what technologies need to be used to fit within that demand.

Payments at the heart of digital transformation

As we continue to see more acquisitions taking place in the North American market, we'll likely see the emergence of new technology that will contribute to the success of the payments and ecommerce industries.

While businesses will begin to introduce this new technology to new markets, they must also learn how to comply with new regulations that accompany these advancements. Still, while all this is happening and as payments continue to play a critical role for customers, businesses must remember that understanding their customers' needs is the most essential part of a successful payments strategy.

When it comes to customer demand, North America is following the same trends as other parts of the digital world — consumers want things to be faster, easier, and safer. In order for businesses to deliver on this and meet the needs of consumers, they need to have a complete end-to-end user experience, including the payments piece.

To learn more about Ingenico ePayments, please visit: ingenico.com/epayments

ingenico ePayments

Andrew Monroe,
General Manager, North America, Ingenico ePayments

Andrew Monroe is the General Manager of North America at Ingenico ePayments, Global Online. With more than 15 years of experience in eCommerce and sales, Andrew has a deep understanding of the ayments industry. He has managed teams in Fintech organizations in multiple continents, delivering customized solutions across different verticals and regions.

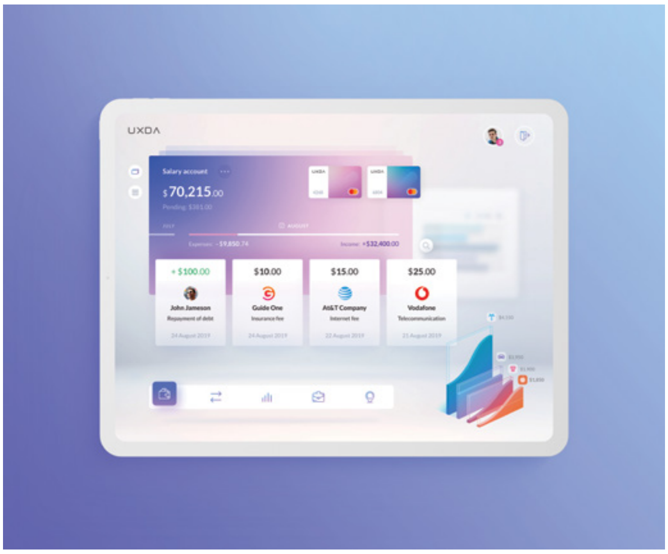
Before being appointed as General Manager, Andrew was the Head of Business Development for North America, Head of Business Development, EMEA and Head of Account Management, EMEA for Ingenico ePayments. In each of these roles, he has increased clients' revenues and created seamless payment experiences for consumers.

Andrew is an active speaker in the payments arena, giving presentations at technology summits, leading webinars, and educating professionals around the world. He shares Ingenico's commitment to knowledge-sharing initiatives and has co-authored white papers on market analysis and strategy, and led case studies with high-profile companies, such as Levi's and Rail Europe.

He has a BS in Business Administration with concentrations in Finance and MIS from North Carolina State University and an MBA from TIAS School for Business and Society. He lives in Atlanta, GA with his wife and three kids and enjoys running and doing yoga.

FIVE CRITICAL FACTORS THAT DEFINE CUSTOMER EXPERIENCE IN BANKING

In the digital age, in which there's an app for everything and almost everyone is able to build one, banks are losing their power over customers. Fintechs are smashing the banking monopoly by substituting the financial headache with pleasant emotions. Users are voting for that not only with 5 stars on Apple Store and Google Play but also with their loyalty and trust. It's no secret - user experience (UX) is what differentiates demanded digital financial products from failures. The question is - how to keep up, creating a customer experience that WOWs?



The digital revolution has changed the rules of the game we all play. If you don't adapt – you will most probably lose. What was efficient to reach demand a few decades ago has now become a waste of time and money.

Over a period of 10 years, I have tested and put into practice more than 100 UX design methods and techniques working with hundreds of financial professionals worldwide. Based on the results and insights gained, I extracted ***five crucial factors*** that determine whether a finance company, bank or a Fintech will or will not be able to deliver an exceptional customer experience.

Winner's mindset

Recently, in some countries, large banks were almost monopolists because they had a very strong and stable market share. Strong barriers of financial services market entry, loyal customers and the absence of worthwhile alternatives ensured good positions for decades.

However, the development of digital technology changed everything. The tools that have been proven to work for decades – like traditional marketing, have stopped working. The world is making new demands on businesses, and banking is no exception.

Today, customers have dozens of new alternatives every year due to low entry barriers and open banking. That's why to survive in the digital age companies are required to adapt an absolutely new way of thinking and operating a business.

It challenges us to put the people first, become customer-centered and deliver experiences instead of manipulating customers to get profit.

The future of the banking industry depends entirely on how the new generation of bankers can bring their mindset in line with the digital age to provide the best possible customer experience.

There are ***five key attitudes*** you need to integrate into your company's DNA if you wish to shift your mindset and culture towards success in the digital age.

1. Serve instead of sell

"Sell" is about focus on marketing, looking at people as numbers behind conversion. Design, in this case, is only about attractive packaging. UX is a tool to manipulate user behavior. "Serve" is focused on customer needs, feelings and behavior. Conversion

Alex Kreger,
Financial UX Strategist/CEO &
Founder of UX Design Agency

is just a metric to evaluate product clarity. The main aim is to provide real benefit for the customer.

2. Emotions over information

Users forget information but remember experiences, and those are created from emotions. Information should be integrated into a context of usage. It should become an organic part of the banking user experience. In the Experience Mindset, emotions are the language to communicate with the customers, understand their needs and expectations.

3. Solution instead of features

Don't make your users think, provide them with a ready solution instead. Too many options cause decision paralysis. Users don't come to you because of the hundreds of options you offer. They have a specific goal in mind that your financial product has to help to achieve.

4. Disruption over protection

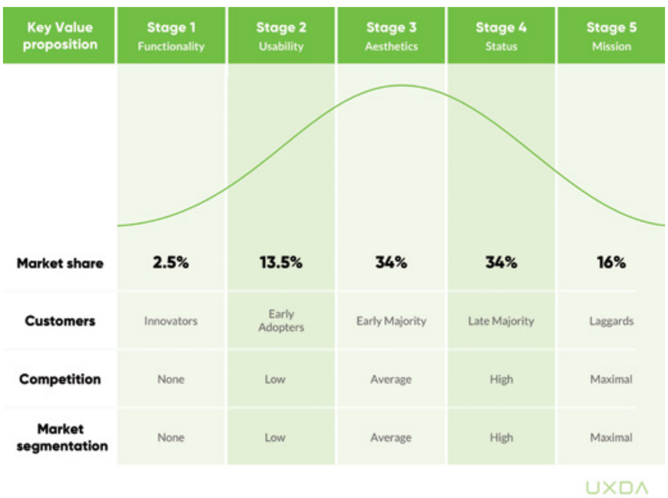
Traditional banks are focused on protecting their legacy and maintaining the corporate image. That's why any new changes come slowly and painfully. Instead of thinking about how to protect their product and stop customers from leaving, banks have to figure out how to disrupt themselves and their competitors. In the Experience Age, disruption is the only way to provide meaningful and pleasant experiences for users.

5. Create flow, avoid fragmentation

It is common to overlook business or products as separate parts. But the human brain perceives experiences holistically – as a whole entity. The Experience Mindset sees the product as a continuous experience flow, even lasting for years. Such thinking allows one to ensure a frictionless user journey by detecting links between user needs, emotions, behavior and service features, design and strategy.

Focus on the Value

Finance companies that actively implement the work principles of the Experience Mindset aim to bring maximum value to the user. In exchange, the customer gladly rewards the company with loyalty and supports its development by recommending the service.



Key Value proposition	Stage 1 Functionality	Stage 2 Usability	Stage 3 Aesthetics	Stage 4 Status	Stage 5 Mission
Market share	2.5%	13.5%	34%	34%	16%
Customers	Innovators	Early Adopters	Early Majority	Late Majority	Laggards
Competition	None	Low	Average	High	Maximal
Market segmentation	None	Low	Average	High	Maximal

The central question in the creation of any financial product is "WHY" it is needed. What exactly makes the product valuable and unique to the users? What problems will it solve and what benefits will it provide? By not treating all of these questions with dignity, the financial company is risking its product quickly sinking into the "red ocean" of competition.

There are five product growth stages that depend on the level of competition and the demand from the customers. Understanding these stages helps to define and create the perfect match between the financial product's value proposition and the market demand, leading to success.

The competition is what requires finance entrepreneurs to step out of the box and identify customers' expectations. The bigger the competition – the higher the need for market advantage to conquer the competitors. If financial product ***functionality*** is not enough to compete, provide ***usability***. If all the competitors have the same functionality and usability, add ***aesthetics***. If you need even more of an advantage, connect the product with the customer's lifestyle by personalizing it; make it a symbol of his/her ***status***. And, finally, you can go even further and state the ***mission*** to deliver the ultimate value that will change the world and gain followers who look up to you.

Targeting the unique Product Value proposition through Mission, Status, Aesthetics and Usability helps to maximize the needs of users through customer-centered product design.

Modern banks have already provided their customers with basic digital functionality. Innovations in digital banking industry have moved from the Functionality stage to the Usability stage.

Despite that, there are still many traditional banks that struggle with the Usability. Meanwhile, progressive Fintechs are quickly climbing up the ladder, reaching Aesthetics and even Status stages, providing digital financial services that are enjoyable, attractive and serve the needs of specific audiences.

Awareness of the design power

By only focusing on the convenience, aesthetics and status of the product, you can engage digital users, but this is not enough. To ensure a long-term success for your product it is necessary to integrate user-centricity into all levels and processes of the company, putting the user at the forefront.

In many cases, incorrect design integration in the process of product creation leads to harmful consequences. The financial product lacks demand in the market, gets rejected by the users, exceeds the development budget or doesn't even get launched at all.

There are ***five mutually connected areas*** in which the UX design can be integrated into the financial product and company to ensure optimum results.

In general, these five areas match the main elements of business development. When you have a solid business idea, you need to create a business model by defining key ***Processes*** that will take you to the desired goal. Here you have to make design the main priority in all of your financial business processes.

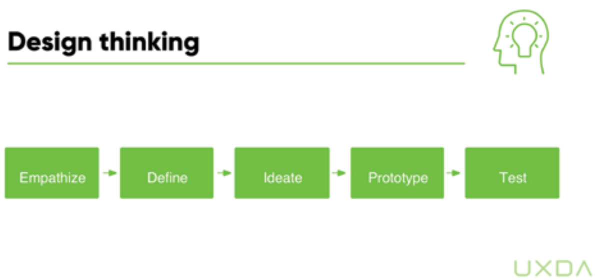
In the next step, you need a ***Team*** of specialists who are qualified to execute your idea. At this step ensure financial UX design expertise from people who master their craft.

When you have found professionals who match the previously defined processes, you need them to conduct the right ***Actions*** that move you closer to product realization. Accelerate design impact by defining results-driven actions.

To be sure you are moving in the right direction, you have to evaluate the ***Results*** your team is producing. You should measure the quality of design by the way it serves your customers.

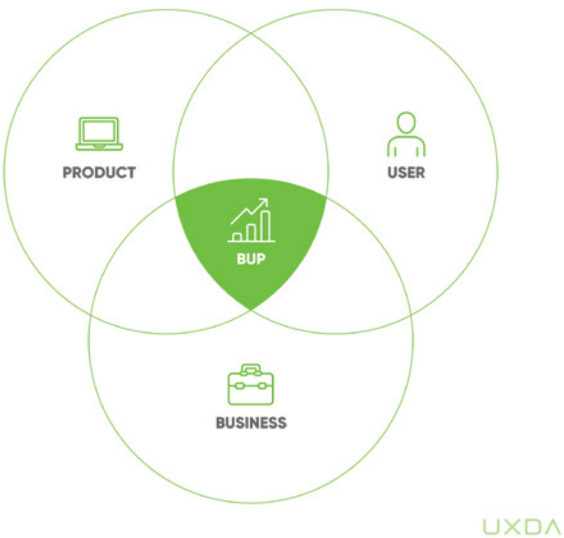
In the end, if all of the previous steps have been accomplished successfully, you can grasp the unique ***Value*** your financial product will provide to the customers, turning you into a success story.

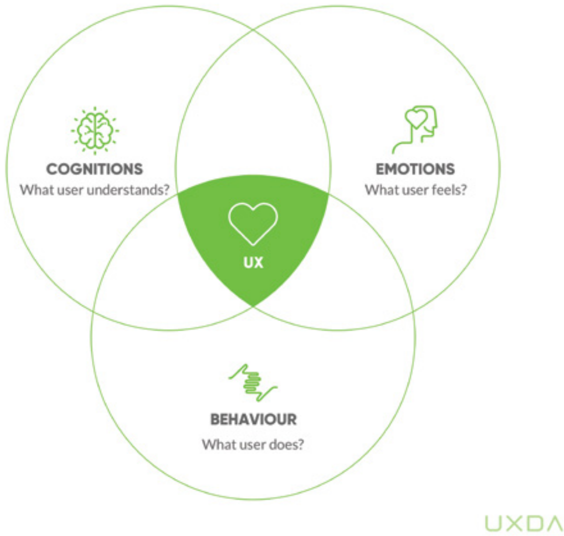
The proper methodology



If a typical business model starts with processes and ends with the value, successful digital financial products are created reversely. You have to start with defining the ultimate value for the customer and only then move on to an action plan.

Though UX is trending today, only a few financial product experts are capable of successfully translating it into architecture and the user interface of a particular product because it requires knowledge in human psychology and behavior. Perhaps this explains why, most of the financial solutions around us are still not pleasant to use, despite multiple UX designers in product teams.





Designing a customer-centric financial product that's based on the value for users consists of three key elements: Design thinking, Business/User/Product frame and UX design tools.

Design thinking is the basis of Financial UX Methodology. It provides a methodical, iterative approach to explore and serve the key user needs through its five stages – Empathize, Define, Ideate, Prototype and Test.

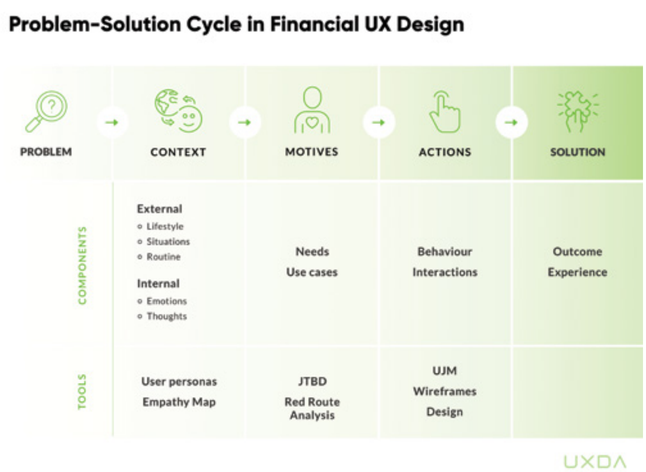
To ensure overall success we have to implement all five parts of the Design thinking process through a ***Business***, ***User*** and ***Product*** perspective. This way, we find, define and materialize the maximum value and gains for each of them.

Finally, ***UX design tools*** provide the best way to execute the whole process of Design thinking and the BUP approach, ensuring effective results-based financial product transformation.

The user

At this point you might feel like you have all of this powerful knowledge to go straight to addressing your customer problems with your financial solution. This is a common mistake many finance entrepreneurs make.

Yes, it all starts with a good solution to an important problem. But, between the problem and the solution, there are three crucial conditions that differentiate whether or not a product will be a success.



To create a demanded digital financial product that will be loved by the customers, we start with the ***problem***.

To clearly define the problem and the tasks, we explore the problem-solution cycle's impact on user experience by creating ***user personas*** and defining their ***jobs to be done***.

Throughout this process, we crystallize the ***context*** in which the problem takes place, the ***motives*** of the users that dictate the ***actions*** and the people it will take to apply the right ***solution***.

During this process, Financial UX design methodology, and such UX tools as an Empathy map, Red Route Map, UJM, user flows, wireframes, UI design and testing are used.

Experience transformation over digital transformation

You can perceive this article as a “cheat sheet” for finance companies to create digital products that can conquer the market amid the growing competition.

Though, all your efforts will be meaningless if you are doing this for the sake of digitalization.

You see, we believe that the digital transformation is pointless if it doesn't transform the user experience. We use UX design and digital technology to take an awful user-experience and transform it into an unforgettable one that makes users happy and solves their problems.

It's not about technologies, it's not about marketing, it's not about trends and looking “cool”. It is all about people.

I encourage you to put people first. You will experience huge transformation happening within your financial organization, as well as outside of it, as the demand for your financial products, loyalty and support from your customers will start rapidly growing.

ABOUT THE AUTHOR:

Alex Kreger is the Founder and CEO of UX Design Agency – the first user experience design agency that's 100% focused on delivering exceptional UX specifically for financial services. He's the creator of the unique Financial UX Design Methodology: science and expertise-based approach for engineering products that rely on human psychology and the specifics of financial services and digital technologies. The methodology is proven on digital financial products, developed for multi-billion dollar financial companies. Financial UX Design Methodology innovation has been awarded multiple globally famous design and finance awards, such as the International Design Award (IDA), A' Design Award, London Design Award, Banking Technology Award, European Business Award and European Fintech Award. Kreger's eagerness to inspire the whole financial industry to become user-centered has made him a well-known influencer in the field. His Linkedin profile is followed by 12,000 financial specialists. His long reads, case studies and research has reached the total reader count of 300,000 finance and design professionals from 127 countries worldwide.

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Helen Petrashchuk

Partner at 4ire Labs with more than seven years in business development.

PSD2 IN EUROPE: WHAT ARE THE KEY ISSUES IN 2020-21?

OPEN BANKING PRESENTS MAJOR OPPORTUNITIES – BUT CHALLENGES STILL ABOUND.

The second Payments Services Directive (PSD2) of the European Union (EU) is the source of massive changes for established banks, challenger banks, non-bank payment services providers and other FinTech companies.

PSD2 makes it much easier for new payments services providers to reach the clients of established banks. Ultimately, the clients should benefit from lower costs, greater choice and more flexibility. PSD2 will encourage the development of innovative solutions by non-banks. This is what open banking is supposed to achieve.

Nevertheless, PSD2 is not a panacea – or at least not yet. One problem is that Europeans still like to use notes and coin to make payments. In spite of the efforts of banks, non-banks, regulators and other protagonists in some countries (such as Sweden), cashless business is still the exception rather than the norm. Research by VISA indicates that, worldwide, only 30% of payments are cashless. Too many people still do not trust online transactions and are much more comfortable making payments the traditional way. This has the potential to delay the further development of Fintech.

As of early 2020, the signs that Europe is moving slowly, rather than quickly, towards the new world of open banking. A key problem is that banks are not ready. Only 15% of the APIs that the banks are using actually meet the technical requirements of PSD2. In some EU countries, the deadlines for the introduction of open banking have been pushed back until 2021. Some commentators argue that too few non-bank payment services providers are involved.

Collectively, the banks are not ready for PSD2. Only 30% have actually opened their APIs – which is understandable given that there are a lot of 'grey areas' in PSD2. Using third parties to reach clients – the essence of open banking – will complicate the selling of additional products and services. In this new world, the banks will also be responsible for the clients' data security and confidentiality. Even if the APIs were all opened, traditional banks would still be losing markets for many of the services that they have offered. There are many issues to be solved.

Perhaps surprisingly, some of the greatest innovation and progress has been in Eastern Europe. In Georgia, SpaceBank is a good example. In Ukraine, MonoBank and PrivatBank24 are others.

Understanding the Millennials

Quite apart from the challenges associated with PSD2, the banks need to understand the Millennials – who will become increasingly important as clients. Often young professionals aged between 25 and 40 years, the Millennials face astronomic real estate prices, high rents, crippling student debts, low job security and declining real incomes. They may inherit more than previous generations, but will not be retiring for a very long time. If they do not understand and see clear value in the banks' offerings, they will not adopt them.

Millennials operate in a different way to previous generations. They are always on the go, used to making transactions on their smartphones. They expect everything to work like Uber: the app of a bank (or, indeed, a non-bank) needs to engage them within 1.5 minutes. The Millennials are open to the idea of making their data available to third parties – but only if they save money or otherwise obtain value.

What's next?

PSD2 will very likely produce a better environment for Fintechs and clients of banks and non-banks. However, it will first be necessary for the concept of open banking to be far more widely accepted than it is today.

The next step will be the application of open banking to core services of banks and non-banks. Offerings will become more standardized. The regulatory environment will become much clearer.

A later phase will involve the development of value-added services that are based on open banking. These should include aggregated accounts and corporate accounts. This should be followed by developments with cross-border payments, loyalty schemes and lending.

Some conventional banks will be major winners from PSD2. They will be the institutions that are able to attract new clients – and Millennials especially – with new applications and solutions.

THE NEW WORLD OF BANKING

THE WINNERS WILL AVOID INSANITY

The consequences of the demise of a global financial services system that supports the needs of everyone on the planet will be far reaching to say the least. But is it likely to disappear altogether? And, in that outcome, what would take its place?

Social inclusion at every level

Although the 20th century is now a distant memory, it undoubtedly spawned a more socially aware generation, intent on rewriting the rules by calling time on long established traditions and 'old world' approaches to macro economic and environmental issues. Many people, including Time magazine's 2019 person of the year, Greta Thunberg, are very vocal on the consequences of global warming, our continuing dependency on fossil fuels, the lack of tolerance and diversity, a shift towards a predominately plant based food supply chain and the need to create a more inclusive, much fairer distribution of global wealth.

Without question these are noble, long overdue aspirations. If managed appropriately, they will not only be for the good of the planet but also provide much needed new business development opportunities across the globe. But what does this mean to the traditional financial firms? Specifically, will traditional financial firms have a role to play as a trusted, 21st century services provider in the new world order?

The rise of the all powerful consumer

GFT

The impact of our technologically driven world and its influence on 21st century expectations is unprecedented. However, we must never forget that, whilst delivering many benefits, technology also has a dark side. The dark side includes rising cybercrime, vicious online bullying via social media channels and the damaging effects of fake news, etc. Despite this, because of technological advancements, today's consumer wields a never before seen power, which has transformed virtually every aspect of modern society.

Nowadays the 'customer experience' is king. Hailing a taxi via a mobile device, 24x7 food deliveries, online medical consultations or 'Googling' for information, available at the touch of a button, are all things that were beyond the wildest dreams of our ancestors. In terms of banking services, consumers are voicing their needs: "I want it now, in the way I want it and at the cheapest possible price (or even for free), delivered on a device of my choice, not yours" – this is becoming the new norm.

Everything digital. Everything cloud... Global communications, rapidly evolving technologies, Artificial Intelligence, the abundance of data, the Internet of Things, the rise of cryptocurrencies, increasing regulation, massive budgetary and expenditure pressures and an empowered and highly mobile customer, have all combined to change the game forever. With new and often unexpected competitors emerging every day, many financial firms are now fighting for their very survival. We all know that technology is the enabler. The result is everything digital, everything in the Cloud and - with open banking - everything on demand with chatbots and

24x7 online support as standard. Corporate survival requires a completely different approach. This is true for any firm, and not just banks.

However, undertaking a wholesale change programme is a herculean task, especially when faced by a myriad of legacy technologies, outdated attitudes plus onerous, labour-intensive working practices. But, and it remains a BIG but, do the leaders of today have the vision and the appropriate skills at their disposal to see it through?


Christian Ball ,
Head of Banking, GFT

The backbone of business growth and development

Across the world, small and medium-sized enterprises (SMEs) are seen as the engines of growth. In the UK alone, they employ some 60% of the private sector workforce and account for up to 50% of UK GDP. Despite this significant contribution, shockingly many of these firms struggle to access business development finance from their traditional providers. It is no wonder that the new, highly automated lending platforms such as Ezbob and the new payments providers, such as Starling and ClearBank, have become such attractive alternatives and are merrily disrupting the established order.

Servicing the customer of tomorrow Today, the survival of the 'bank of tomorrow' is a fiercely debated topic. Whilst opinions vary greatly and without the benefit of a crystal ball, no one can accurately predict what form this will take. Indeed, will 'the bank of today' as we know it will even survive? One thing is for sure, change needs to happen and it needs to happen very quickly. Unless they get moving now, the current financial services providers have very little chance of creating an appropriate, ethical and compliant entity, capable of supporting the diverse needs and new world demands of the corresponding 'customer of the future'.

Over spending on IT, with very little to show for it?

According to a recent Bank of England 'future of finance' report published in November 2019, most financial institutions are spending up to twice as much as they need to on IT. If this is true, what are they doing, and why are so many still unable to provide the products, services and much needed funding the SMEs and other businesses so desperately need?

None of the following response is rocket science, simply a snapshot of the Bank of England's 'must do' recommendations:

1. Update IT operating models to get ready for the 'new normal'
2. Slash costs by simplifying legacy systems, taking SaaS beyond the cloud, and adopting robotics / AI
3. Build the technology capabilities to become more intelligent about customers' needs

The new competitors must be rubbing their hands with glee at these findings. In this modern world, there is simply no excuse for maintaining systems or services that are no longer fit for purpose.

Albert Einstein was right

Where would we be today if, for example, the early explorers had not set sail in search of new horizons, or medical practitioners had not taken enormous risks in order to improve the health and wellbeing of their patients? Albert Einstein, hit the nail on the head when he said: "the definition of insanity is doing the same thing over and over and expecting different results". Yes, mistakes were made by the early pioneers and inevitably more will be made on the journey to transforming the business of banking, but doing nothing is not an option.

A legacy of insanity?

However, environmental issues notwithstanding, money still makes the world go round, and whatever form it takes, there will always be a need for a global financial services system that supports future growth and development. It is up to us now and we owe it to the upcoming leaders and workers of tomorrow; and oh yes, not forgetting Greta and her growing band of followers, to ensure the right system is in place. How this can be achieved is the subject of another discussion. But who today in their right mind would want their legacy to be one of insanity?

MONETIZING PAYMENTS DATA PAYS OFF

If you are opening a small kiosk near a university campus in the Netherlands' biggest student city of Utrecht, make sure you stock more premium coffee than cheap coffee.

At least that's what the point-of-sale transaction data[1] shows. We've all seen the news articles poking fun at broke millennials for spending too much on artisanal products and avocado toast, so it's not a groundbreaking insight that they also like splurging on fancy coffee. But it's only now with the advent of connected devices that trends can be quantified accurately and in real time.

Payments have become a seamless part of the customer experience, able to be now completed with a tap, a wave or a click. Despite their invisibility, payments data can yield rich insights about economic trends.

Building an ecosystem of insights

Traditional methods of understanding consumer preferences are no longer effective on their own. For instance, surveys are limited, inefficient and biased. Transaction data can provide far more granular insights to various stakeholders - from retailers and restaurants to corporations and investors. Institutional investors and economists are already using this data to make better decisions.

This means companies, from retailers to payments firms, can create a new revenue stream by monetizing their data. Even when this data is anonymized, many are still concerned about unintentionally exposing the identities of their customers. However, the key is in aggregating the data in a way that doesn't include sensitive information about any individual source.

Aggregate data, stripped of identifying details, can still be a powerful source of insights. For example, we track data on beverage sales in on-trade channels (the industry term for restaurants, bars and cafes) across six countries in Europe. This data can be used in all sorts of ways. A business can use it to help price products competitively without having to physically visit all the other bars in the city. An international food and beverage (F&B) operator can use this information to decide on the best location for its new outlet.

Meanwhile, the payments solution provider collecting this data can tap into it to serve merchant partners' needs. This means the same data can have a meaningful impact across different organizations and across the whole value chain.

Our mission is to democratize access to this underutilized data so that someday, even a consumer can use this data to find out where the cheapest gin and tonic cocktails are in their city!

Bringing outside insights into the boardroom

Sometimes analyzing your own business data simply isn't enough to provide the full picture.

According to research[2], the rate at which companies are using external data sources is outpacing that of internal sources. In a more connected and complex world, organizations are starting to realize that their internal data is just one piece of the puzzle.

For instance, many companies may already have a good grasp of what they sold last week, last month, or last year. But this may not be sufficient to predict what will sell tomorrow. The most accurate predictors often come from external sources - forward-looking market trends, competitive intelligence and insights that provide greater understanding of the environment in which the business operates. For example, by looking at historical sales of premium alcohol in our dataset, one can make inferences about growing affluence or gentrification in certain neighborhoods. Now, imagine being able to get a sense of that in real time!

The problem is most merchants don't have the capability to easily crunch through all this information. This creates an opportunity for their payments partners to help connect the dots. They can use this data in a strategic way to create new products or expose the data in a way that delivers value to merchants.

Merchants shouldn't have to think about data, after all, and be distracted from their core business. What matters for them is getting actionable insights. For instance, insights on anonymous customers' full wallet spend and basket composition can help merchants optimize their operations or improve the end-customer experience.

1 Coffee sales in Utrecht from October 2017 – September 2018
2 Business Application Research Center, March 2018

Knowing what your customers purchase in your store or restaurant is one thing - but being able to access aggregate industry data is even more powerful. If we see that nachos and beer in the same transaction lead to an average 30% higher consumption in beer, then we can advise merchants trying to increase beer sales to include nachos on the menu.

Getting data monetization right

As all the examples above show, a robust data monetization strategy is important for innovation, growth and a competitive edge. But many companies are also wary of the challenges of extracting value from such vast amounts of data.

This is why it's important for them to find partners that can help them establish a strong and safe data foundation in order to build the business case and technical platform needed to effectively monetize data. This requires close collaboration and a unified approach that can turn their data into both revenue and insights.

Hamza Khan,
Founder and CEO of Suburbia

Aaron Harris,
CTO, Sage

2020 PREDICTIONS

The day before Brexit it was reported that the UK fintech scene had reached new investment records in 2019 – notching up $4.9 billion of capital raised, surpassing the $3.6 billion the previous year.

This doesn't come to much of a surprise. Financial technology provides quick and easy digital solutions to problematic processes, and despite new regulations cropping up, the future is looking bright for the sector.

There is however space for significant growth in areas such as PSD2 and Open Banking, where we are seeing investments being made by some of the biggest players - Visa just bought Plaid, a banking data aggregator, for $5bn.

New industry trends, such as data control and automation, will shape the direction of fintech. With that in mind, here is a list of predictions that will define the direction of the finance industry in the coming year.

Robotic Process Automation integrating with businesses

2020 is going to be a momentous year for Robotic Process Automation (RPA) as it takes over the business world. RPA is the process of automating mundane tasks such as taking data from one file and entering it into a business application like CRM. Its main purpose is to computerise repetitive tasks that are an inefficient use of people's time.

RPA is not a what many people think it is – it is not a physical robot. It is an approach to working across multiple software applications by entering, maintaining, migrating, integrating, mining and testing data on spreadsheets. RPA is the equivalent to an employee who never sleeps, eats or makes mistakes on tasks that need constant repetition.

At the moment, only big enterprises are employing RPA at scale. 2020 is when we will see this trickle down to small and medium-sized businesses. RPA software revenue grew 63.1% in 2018 to $846m and will grow further to $1.3bn in 2019. That means, according to Gartner, RPA is the fastest-growing segment in the global enterprise software market.

Two-thirds of financial processes are now automated, in one shape or form. The remaining third is taken up by 'human' requests for information – and the next advancement for RPA is to automate those processes too. As an industry, enterprise software might not quite be there, but RPA is one of the main trends driving industry leaders towards a more automated future.

At some point in the future, whether it comes in 2020 or later, more forward-looking companies will begin to share financial results in real-time – unlocking potential to provide instant access to a business's financial health. This is known as zero-forecasting, which several larger enterprises have indicated as their objective in terms of transparency. RPA will be the force that drives the method of gaining transparency through the constant gathering of data/insights to develop stronger customer relationships and business growth.

The other key factors are AI and digital transformation, which are helping professionals re-engineer processes to take advantage of digital capabilities – easing the administrative and reporting burden.

Blockchain is gaining more traction

The blockchain is one of the most progressive and innovative inventions but it has gone through what Gartner calls in their "hypercycles", the trough of disillusionment. It promised much but delivered very little. Ever since it emerged as the 'next big thing', there have been few meaningful applications for blockchain to be integrated and utilized in the real world.

So, what's holding blockchain back from mainstream adoption? There are a few elements here, but it mainly comes down to cost, scalability and trust.

With industry leaders like Amazon or Microsoft committing to building services around blockchain, other businesses will follow with accelerated adoption. Leading businesses will tackle the issues that previously stopped blockchain from making its way into the mainstream – with real-world solutions coming into play in 2020.

Virtual currency will prosper with Libra

Facebook's new virtual currency, Libra, has the potential to change the future of payments. In the past, virtual currencies have only been useful for storing currency. But Libra is setting out to solve a real-world problem, and it could be huge, as it becomes the first electronic currency with the potential to be used as a means of exchange.

Facebook's strength is its vast user base with its current network of 2 billion people – a third of the world's population. Although the company faced legislative backlash in the United States for its failures to protect consumer data and having the platform used for election interference. Legislatures feared Libra could be misused by money launderers or put user's data in a vulnerable place.

But Libra could revolutionize the global payments system – with the proper regulation.

If, for example, a migrant worker wanted to send money back to their homeland, they would face a 6% to 20% mark-up on currency exchange and wire transfer. This kind of transfer is also risky and slow. If a family were to use Facebook, they could convert their local currency to Libra and use Facebook Messenger to directly transfer money to their family. It's quick, easy and secure.

Money laundering was a main concern with the implementation of this virtual currency, but Libra actually solves the problem of money laundering. In the present, financial transactions are largely processed with a paper-based system. There can be little or no trace of where money is coming from or going to. The United Nations recently estimated that the criminal proceeds laundered annually amount to between 2 and 5 percent of global GDP, or $1.6 to $4 trillion a year.

A digital currency such as Libra produces immutable records of every transaction made – where it came from and where it is going. It is like a cryptographically protected distributed ledger for currencies making it much harder to launder money.

There are several regulatory and legislative hurdles to overcome here. Technology that disrupts the currency space so massively, calling into question the very notion of a centralized monetary system, is bound to be scrutinised heavily. The G7 nations has therefore responded by creating a taskforce to look at the issue of cryptocurrencies, with a major focus on Libra; this year will offer digital currencies a real chance to prove their value and have a definitive impact on the fintech space.

sage

ARE TODAY'S BANKING EXPERIENCES 'HUMAN' ENOUGH?

THE CHALLENGES OF BALANCING CUSTOMER EXPERIENCE WITH OPERATIONAL EFFICIENCY...

Getting the right balance between operational efficiency and delivering a meaningful customer experience requires a delicate approach. Often the two can effectively co-exist comfortably, and even help to accelerate one another, but have the scales tipped too far towards a blinkered view on costs alone?

As the industry continues to transform and we see new market entrants and financial service offerings from non-traditional players such as Uber, the landscape continues to become more and more competitive. Customer service is a key differentiator, and when done well, can help banks to drive positive customer acquisition and retention rates over and above the competition.

The ability to deliver a seamless experience in order to stay one step ahead is crucial, but technology alone does not make a great connected experience. What lies at the heart of effective connected journeys is — humanity. A recent report[1] showed that regardless of how advanced technology gets, 81% of consumers still want to speak to a human or visit a bank branch.

With an open culture, the right internal communications and a willingness to learn from mistakes, harnessing the power of human interaction is a hugely useful way to incrementally improve and refine the customer journey at every touchpoint.

Where do you start when putting a plan in place? There are some key areas to consider when deciding how to offer services based on a human experience.

The realms of possibility

The fundamental truth is that our world is changing, taking our expectations with it. With emerging technologies and the dissolving of boundaries between industries, consumers are demanding better customer experiences – and are prepared to vote with their feet if they don't get it.

Today, technology is shaping the way we transact – think Oyster cards, Apple Pay and contactless charity donations. And tomorrow, the Internet of Things (IoT) will be a playground of opportunity for financial services. For some forward thinking organisations, embracing these technological advancements is helping to deliver new levels of services that would not have seemed even remotely possible ten years ago.

For example, for those who have implemented Artificial Intelligence (AI) it can sometimes be difficult to tell where the AI ends and the humans begin – with some applications extending to even

John Ennis

Vice President Banking UK/I, South Africa, Middle East and Nordics, Diebold Nixdorf

[1] A Bank to the Future 2019, CYBG

mimicking emotional human interactions and shared activities. Cobots – the concept of collaborative robots – are already being used to achieve the latter.

However new technology is only one ingredient in the recipe for success and there must be a line drawn between new technology used for the sake of it (which can damage reputations and customer satisfaction) and those that can clearly add value to the consumer.

New customer journeys and digital offerings should be influenced by more than just technology. They should be impacted by the human experience too. This means thinking about social factors, a psychological understanding of consumers and clients and an appreciation of customer and staff adoption of new technology. After all, customer journeys are always essentially human.

Know your customer

What values are rooted into the purpose of your organisation and how you want to deliver to your customers? Although many claim to adopt a customer first approach, in reality how many organisations unwaveringly champion the customer at every level of their business? It seems however there has never been a more important time to really put the customer at the heart of your strategy, in order to deliver what consumers want and how they want it.

Most financial service providers have huge amounts of data available to facilitate getting to know customers better, and indeed the challenge often lies in making sense of where to begin rationalising vast quantities of information. But ultimately data only plays one part of the story. AI, robots and analytics are hugely valuable tools but they lack one thing; the ability to be human, and therefore understand customer experience at a meaningful level across every channel.

For example, customer service personnel and branch staff can help financial service providers to develop a genuine perception of how well their commerce strategies are working (or not) and identify areas for improvement.

Investing in technology alone is simply not enough. Effectively embracing innovation is only possible when it is underpinned by investing in people, and therefore the ability to deliver the 'so what' factor for your brand.

Pinpoint personalisation

Some financial service providers might feel that true personalisation is a far off reality but it doesn't have to be and it is important for today's customers. With personalisation driving loyalty in 18 out of 20 international markets according to a recent survey[2], can you really afford not to tailor customer journeys and experiences?

A recent study showed that 90% of consumers are attracted by the appeal of a personalised service[3] which demonstrates the value a tailored approach could potentially add to CX and net promotor scores. Another report found that 67% of respondents cited personalisation as the most important or a very important factor when deepening their relationship with their bank[4].

When combining the power of data with a personalised human interaction, the opportunity to capture new revenue and business opportunities is extremely powerful. For example, an in-branch customer service representative armed with AI-driven customer data on a tablet advice can deliver the ultimate end-user experience; a personal interaction powered by the efficiency and insights delivered by new technologies.

Banking on a human touch

With the rise of branchless banking and digital first options, there's no doubt that the role of people within the banking sector is changing. But this doesn't always mean losing the personal touch, with successful banks such as First Direct demonstrating that when delivered correctly, direct banking can deliver high levels of customer service and satisfaction.

Many of us however still value a face-to-face conversation, particularly when considering more significant financial transactions, with in-branch channels remaining the most popular choice when considering and purchasing new products[5].

The rate of branch transformation varies by financial service providers, but there appears to be a general recognition of the importance of redefining the branch experience to meet the shift in how consumers want to engage with their banks. From work cafés to pop-up branches in high footfall locations such as shopping centres, branches are becoming 'experience hubs' where consumers can embrace the power of digital and personal interactions in convenient and future-focused formats.

The danger of a commodity industry

There is one significant danger of not delivering a personalised service in banking and that is financial service offerings could simply become a commodity. Delivering quick and convenient services to consumers is essential in order to remain competitive, but standardising services too much could really dissolve that added value the industry can offer.

Financial service providers need to avoid become faceless providers of services and deliver humanised experiences which offer differentiated journeys. By offering these more meaningful connections to customers, not only will brand loyalty and customer satisfaction be likely to improve, but one key element of banking can be retained – trust.

Technology is clearly changing how, where and when customers interact with banks. To keep up with rising expectations, financial service providers must focus on re-evaluating end-to-end distribution capabilities to deliver the right product, through the right channel at the right time – seamlessly and consistently through the right mixture of technology, and crucially, people.

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2 Global Customer Experience Excellence Report 2019, KPMG 2019
3 Epsilon, 2018
4 BCG, 2018
5 The Banking Human Experience, Accenture 2018

TOKENY SOLUTIONS:

ACCELERATING CAPITAL MARKETS WITH TOKENIZATION

Financial IT: Can you please tell us more about Tokeny Solutions and about your background?

Luc Falempin: My previous experience circled around building a marketplace solution in the e-commerce industry. It was a SaaS business and I worked with some of the largest e-commerce websites in France. Having the experience of building and scaling a team, marketing the product and driving sales, it has been something that was easy to transfer to a business such as Tokeny Solutions.

In 2017 I sold my stake in this company and founded Tokeny Solutions to allow financial institutions to benefit from operating on a decentralized infrastructure. We specialize in enabling firms to apply control and compliance to this resilient and shared infrastructure by giving them the tools they need to digitize financial instruments and drive operational efficiency.

Since our inception we have acquired over 35 customers across various asset classes including real estate, utility, equity, debt and funds. Last summer we welcomed Euronext as our partner and investor, and institutional adoption is something we are seeing grow month by month.

Financial IT: What are the key features that make Tokeny Solutions unique among its competitors?

Luc Falempin: We are one of the first solution providers to enforce control and compliance on a decentralized infrastructure. We did this through the creation of the T-REX (Token for Regulated EXchanges), a suite of blockchain-based solutions to issue and manage compliant security tokens on a distributed infrastructure. It includes the creation of smart contracts and integrates the appropriate KYC and AML parties as part of the investor validation process.

We've gained significant traction amongst institutions and have sealed business relationships from the likes of PwC, DLA Piper and Deloitte. We were recognized as KPMG Luxembourg's Fintech of the year in 2019 and included in their global 100 Fintech list. Last summer we raised funding from Euronext, who are the leading pan-European exchange in the Eurozone. We see Euronext as the perfect partner as their investment allows us to lean on the resources brought by the largest centre of debt and funds listings in the world.

Financial IT: What are the emerging trends you see in the industry today and how does Tokeny address these new challenges and trends?

Luc Falempin: Over the last 12 months we've seen a shift from companies issuing capital in one time instances to a wave of new digital investment banks and market places. Some of our new customers, including Black Manta or Bakari, are good examples of this. We enable these types of customers to interact directly with the blockchain by giving them the tools they need to compliantly operate on this shared infrastructure. This allows players like this the freedom to focus on what they do best, which is developing their investor communities. We expect more firms to operate like this in the future and we're happy to be the leading technology provider for this type of emerging company.

We're also working with larger and more traditional institutions who do not have the benefit of being able to start their technology infrastructure from scratch. The leading financial institutions are becoming increasingly aware that compliance and control can be applied to decentralized technology through permissioned tokens and onchain identities. Private blockchains are struggling to progress as they bring the same problem of fragmentation that has plagued the industry. Institutions are now in a new position where they can gain a competitive advantage in the market and provide new services for their clients, particularly in terms of custody and distribution.

Luc Falempin,
CEO and Founder,
Tokeny Solutions

Luc Falempin is CEO and Founder of Tokeny Solutions and has been immersed in enterprize grade technology for over ten years. He has successfully started and sold technology startups in the past. Always aware of emerging technology, Luc discovered blockchain in 2011 and more recently founded Tokeny Solutions, a technology enabler with the vision of digitizing capital markets. In July 2019, the company raized funding from Euronext.

Financial IT: Could you please tell us more about the products Tokeny provides such as ONBOARD, ONCHAINID and T-REX?

Luc Falempin: We have three live solutions to enable benefits for our customers. The first is ONBOARD, a white-label platform to enable the qualification and digital subscription of investors and the appropriate KYC/AML duties issuers are obligated to perform. It is a streamlined onboarding process that ensures investors are onboarded compliantly and with ease. Once the eligible investors are qualified they are able to digitally sign the subscription form and pay for their tokens. A third party custodian can be used to hold the funds collected until the round is completed. We handle this complete process of directing the funds from the investors to the custodian.

During this process the Ethereum T-REX (Token for Regulated EXchanges) protocol is engaged. The T-REX is a suite of blockchain-based solutions to issue and manage the full lifecycle of compliant security tokens. It includes the smart contracts creation and deployment, a solution for issuers to allocate tokenized securities and the service issuers need to manage the securities post issuance.

Many rules and regulations govern financial securities and these can't be respected without identities. When the security tokens are allocated to eligible investors, they also receive their ONCHAINIDs. This is the universal identity system that allows market participants to easily identify themselves and their assets on the blockchain whilst enabling the issuer to automatically whitelist eligible investors.

We offer a complete solution that provides a streamlined and efficiency-focussed alternative to a very analogous and cumbersome process that exists today. We utilize all the benefits of the public blockchain such as transferability and automation and apply the necessary control and compliance to the network.

Financial IT: What are the key milestones for Tokeny that we should look for in the next couple of years?

Luc Falempin: We will further cement our position as the leading provider of tokenization technology in Europe and facilitate new marketplaces and digital investment banks with compliant and secure technology that's required. These types of players have already emerged and are beginning with funds and real estate projects that are driving the industry. By the end of this year we expect to see many more companies of this type emerge.

We are also focusing on Asia much more in 2020. We have seen Thailand and Taiwan make some strong progress in drafting legislation that allows retail investors to participate in the investment opportunities that security tokens provide. Korea has launched a sandbox and has been supportive of digital securities. Singapore seems to be the furthest ahead in the region. There will also be an announcement in Japan in the first half this year which will spark a lot of activity in the region.

Overall, we want to be the tool provider for financial institutions and enable these firms to drive efficiency and offer new services and business lines for their customers. The technology is ready and we're delighted to be driving this wave of innovation in the industry.

tokeny SOLUTIONS

SELF-SERVICE BANKING ASIA 2020 – INNOVATION IS THE KEY TO SUCCESS

Interview with Gillian Shaw, Research Analyst and Conference Producer at RBR

Southeast Asia, with its significant unbanked populations and fast-growing economies, is one of the most dynamic regions in the world for self-service and digital banking. Self-Service Banking Asia 2020 will explore how technology, innovation and creative thinking are the keys to solving growth challenges. We caught up with conference producer Gillian Shaw to find out a little more about the industry's hot topics and what we can expect from RBR's flagship event.

Financial IT: What are the main challenges faced by retail banking in the Southeast Asia?

Gillian Shaw: Put simply, the main challenge is keeping pace with increased demand. Explosive economic growth, driven by rapidly increasing populations, has pushed retail banking into its own expansion phase. Potential customers abound, given that a large proportion of the population is still unbanked. Addressing this pressing issue of financial inclusion, thought leaders at the conference will discuss how new distribution models such as agency banking, next generation cash circulation and direct banking can help the industry expand its reach. Banks in the region, like those in other parts of the world, are also facing increasing challenges from non-banks. Digital banks enjoy some advantages over physical banks, such as lower staff costs, and can pass these savings on to consumers through lower loan and mortgage rates and higher interest rates on savings. The region's banks need to develop strategies for dealing with this competition and the conference will look at ways in which Fintech/ bank collaboration could be the way to scale and grow.

Financial IT: What about Vietnam in particular?

Gillian Shaw:Banking in Vietnam has seen stellar growth over the past decade not least because it is one of the world's fastest growing economies due to its expanding consumer market and stable political situation. There's lots of untapped potential; 69% of adults in Vietnam – or 50 million people – still don't have a bank account. Vietnam remains a heavily cash-based society, with close to 99% of transactions conducted in cash, so the demand for other types of payments is growing with the economy. The State Bank of Vietnam, the nation's central bank, has launched a number of financial inclusion measures over the last few years to bring banking services to rural areas. Indeed in January this year, the central bank announced new initiatives to prioritise cashless payments in the country.

Financial IT: How does Fintech fit into all this?

Gillian Shaw:Driven mainly by the fact that only about a quarter of the population across the region has a bank account, Southeast Asia holds great opportunity for Fintech companies. The trend of rapid Fintech growth seems poised to continue into the future with robust investor interest in companies in the region. Vietnam specifically is establishing itself as one of the newest hubs of Fintech innovation with currently around 100 Fintechs operating in Vietnam; most of these are collaborating with banks. Vietnam has a youthful, tech savvy population, a large number of smartphone owners and a rapidly expanding e-commerce sector – all of which are helping to set the pace of digitisation.

Financial IT: Can you tell us something about the most exciting innovations coming out of Southeast Asia?

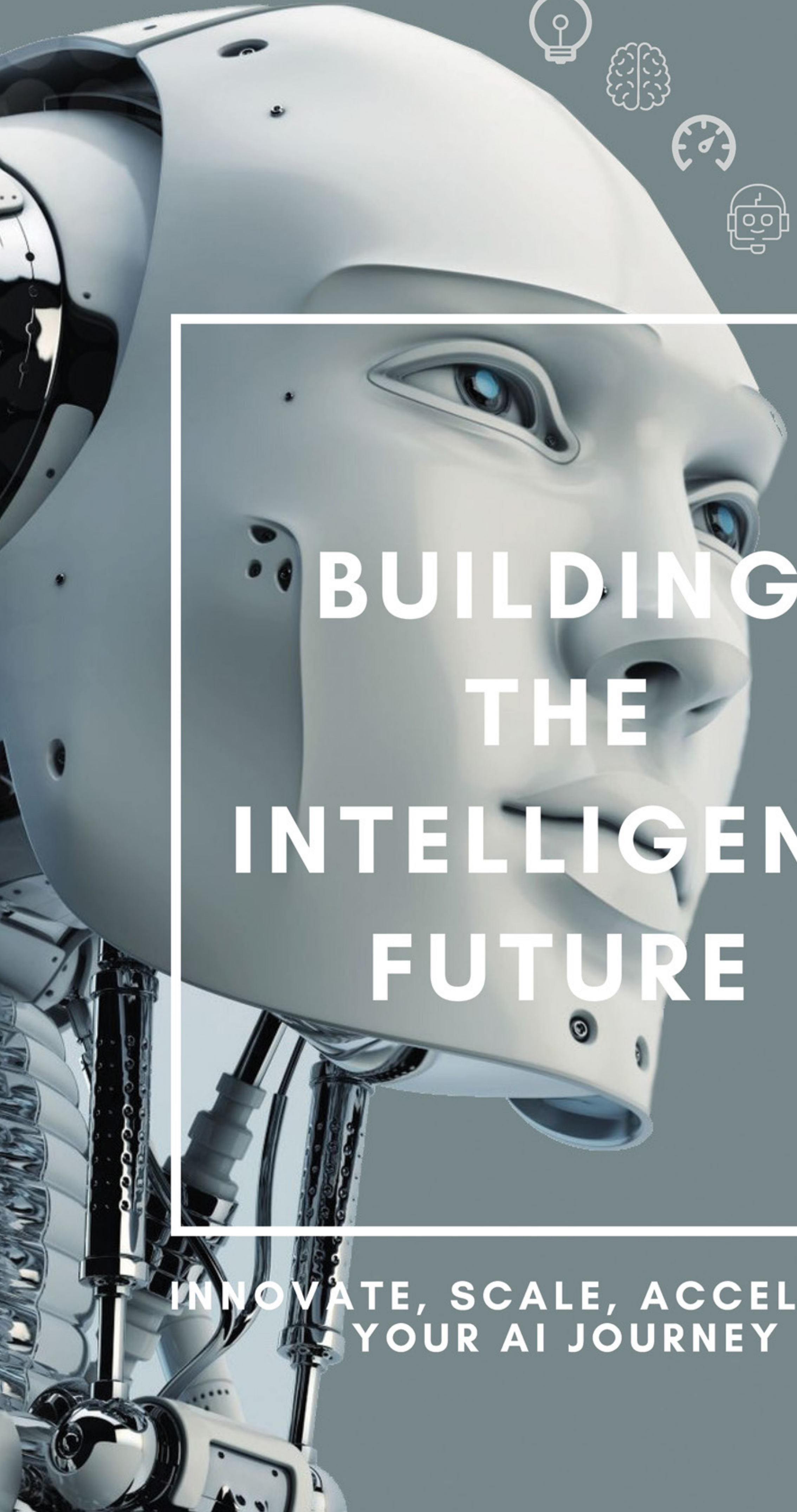
Gillian Shaw:Banks need to innovate quickly to rise to their growth challenges. The region is home to many innovative industry players who are adding state-of-the-art functionalities to ATMs such as biometrics, recycling and cardless cash withdrawal. Speakers at the conference will discuss which innovations can help banks optimise their ATMs to increase revenues and lead to better customer experience. Digital self-service banking solutions are also evolving quickly, as Fintechs race to capitalise on growing consumer demand. With the region's population still heavily cash reliant, banks are looking for next generation cash distribution models to take banking to the masses. Other forms of payment, particularly QR code payments, which are already so big in China with WeChatPay and Alipay, are taking off in Southeast Asia as merchants pick up on the low cost of adoption. In Vietnam, a large number of banks offer QR code payment services thanks to collaboration with VNPAY and e-wallet firms such as MoMo, Moca, and ZaloPay are dominating the cashless payment industry.

Financial IT: How is Self-Service Banking Asia unique?

Gillian Shaw:Our editorially led agenda means that we address the most pertinent issues shaping the landscape of financial services today. We have an excellent line-up of speakers from leading institutions such as Bank Indonesia, Maybank, LANDBANK, OCB, Barclays, CIBC, Intesa Sanpaolo, Bank Muamalat, soCash and Krungsri Finnovate who will be giving their expert opinions on the region's most recent innovations. The conference also has a dynamic exhibition area, showcasing the latest self-service banking technology from leading international suppliers. The banks at our Asian conference always bring an unparalleled level of enthusiasm with them, making the most of this unique opportunity to learn from each other and explore first-hand the latest technology.

Financial IT: When is the conference taking place and how can we find out more?

Gillian Shaw:Self-Service Banking Asia 2020 takes place at the Windsor Plaza Hotel in Ho Chi Minh City, Vietnam, on 18th and 19th March 2020. For more information about how to get involved either as an exhibitor, speaker or delegate, please email me directly on gillian.shaw@rbrlondon.com or visit www.rbrlondon.com/ssba



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