www.financialit.net • Spring 2019 • Special Money20/20 Asia Edition

Financial IT

Innovations in FinTech

TECHNOLOGY AS A DRIVER FOR INNOVATION IN THE ASIAN PAYMENTS MARKET
Edward Chien
AVP, Sales Director Asia Pacific
Compass Plus

THE OPEN BANKING REVOLUTION IN APAC: REDEFINING AN INDUSTRY
Smita Gupta
Senior Director
of Regional Marketing,
Asia Pacific at Finastra

THUNES:
DELIVERING SMARTER PAYMENT SOLUTIONS FOR EMERGING ECONOMIES

Anders la Cour
Co-founder and Chief
Executive Officer
Saxo Payments Banking Circle

GETTING CASH FLOWING FOR EVEN THE SMALLEST ASIAN MARKETPLACE SELLERS

ASIA, AND MORE...

WHERE IS THE ACTION, AND WHERE WILL IT BE?

The Money 20/20 Asia conference takes place in Singapore on 19-21 March. The city-state has long hosted successful large scale conferences. Singapore has also long been recognised as a place where it is easy to establish and operate financial services and Information Technology (IT) businesses.

What makes this conference special is that it is one of the first landmark forums for people who make decisions about IT for financial services businesses that is in an Asian centre and after 2018. Regardless of what happens to the global economy and financial system, last year will be remembered as the year which delivered the second Markets in Financial Instruments Directive (MiFID II), the second Payments Services Directive (PSD2) and the General Data Protection Regulation (GDPR).

All three of these new pieces of law emanate from the European Union. However, because of global linkages, they have had major implications for financial institutions and FinTechs that are operating mainly in other parts of the world. As of mid-March 2019, it appears that all organisations that are exposed in some way to MiFID II, GDPR and/or PSD2 had prepared thoroughly, with the result that most are enjoying 'business as usual', or are taking advantage of new opportunities.

A key message from many of the articles in this edition of Financial IT, and from the conference in Singapore is that 2019 is a year in which many protagonists will shift their focus from Europe to the dynamic Asia-Pacific region. The region is, and will remain, home to the biggest populations, the greatest pools of savings and the quickest growing large economies. In particular countries, there will also be opportunities from first-time users of financial services.

Of course, the region is far more diversified than Europe or the Americas. There is no equivalent of the European Commission, the European Central Bank or the Federal Reserve System. As one of our contributors to this edition of Financial IT explains, central banks and regulators across the Asia-Pacific have taken different approaches to the adoption of Open Banking - the key change brought in by PSD2. However, it is clear that most of the Asia-Pacific's banks are ready for Open Banking and are performing well.

The number and variety of articles that have been contributed to this edition of Financial IT indicate that the authors understand the central importance of developments in the Asia-Pacific. Collectively, they highlight other opportunities as well. Financial services is linked to all other sectors of the global economy. As one of our contributors explains, technology may have a revolutionary impact in the energy industry.

Meanwhile, Blockchain technology will play a key role in solutions that require security, even as a speculative boom in Bitcoin and other widely traded crypto-currencies has come to an end. Relative to early 2018 and early 2017, much more thought will be applied to what, exactly, is a store of value.

We wish all participants in Money 20/20 Asia a successful conference and a prosperous 2019.

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

Follow Us
Twitter *@financialit_net*
LinkedIn *https://www.linkedin.com/company/rfp-connect_2*
Facebook *https://www.facebook.com/financialit.net/*

Financial IT
Innovations in FinTech

ISSN 2050-9855

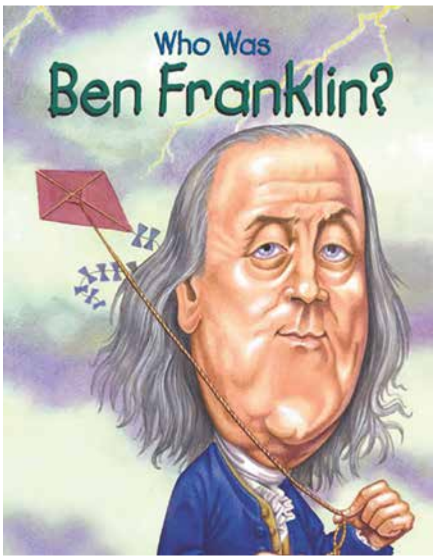
Finnet Limited
137 Blackstock Road, London, N4 2JW,
United Kingdom
+44 (0) 208 819 32 53

$100 BEN,

YOU DID IT AGAIN!

One of my favorite American historical personalities is Ben Franklin, born 1706 and died 1790.

Yes, Ben is known as a leader for liberty, a politician, an inventor, scientist, businessman, philanthropist and, generally, a genius in his day. He is also the only American founding father to sign all three documents related to the freeing of America from England. He was involved with the signing and drafting of the Declaration of Independence and the Constitution. He also negotiated the Treaty of Paris that officially ended the War of Independence. These documents brought the United States of America into being. Additionally, Ben was the publisher of the Poor Richard's Almanac and as, a fellow publisher, I am in awe of the breadth of his contributions.

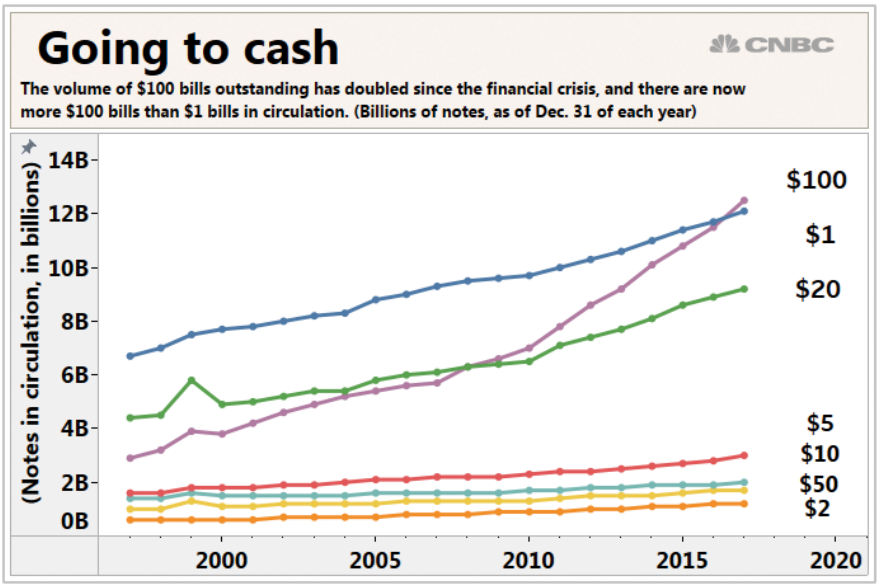


Ben Franklin helped build the University of Pennsylvania, raised funds to build the nation's first hospital, Pennsylvania Hospital, created the first lending library and fire company long before any government provided this for its citizens. He was the First Postmaster-General and the first Minister to France; he was against slavery as an institution and, as a scientist, proved at night with a kite and a key that lighting was electricity. After proving this, he invented the lightening rod to protect buildings as well as bifocal glasses and the Franklin Stove. His genius was centered on leveraging his contacts and connections in the areas of business, social, political, scientific and journalism into a huge network that paid him back tenfold. There are many lessons to learn from studying this man's networking abilities.

Unfortunately, for Ben, the generations today do not know him based on his amazing life. If you ask anyone off the street today, they will know him immediately as the guy pictured on the U.S. One-Hundred-Dollar bill. Those people will not be able to tell you much else about Mr. Ben Franklin. They will easily recognize him as a "Benji" or a "Benjamin" slang terms used for the $100 bill that he is pictured on. The slang was made famous by the 1997 song by Shawn Combs (Puff Daddy) "It's all about the Benjamins" and the 2002 movie "All about the Benjamins". This is where the trouble starts.

The U.S. Federal Reserve Bank released an interesting fact. At the end of 2017 the $100 has surpassed the $1 in terms of number of bills in circulation. There are over 12.5 billion $100 bills in the world. Since 2016 over 70% of those $100 bills have been located outside the United States shores. Just for fun let me give you a few $100 bill facts:

- The lifespan of a $100 is about 15 years, the longest of any American banknote
- It costs the Federal Reserve Bank printing presses about fifteen cents to produce
- The U.S. $100 is the most counterfeited bank bill in the world
- 1 Million dollars in $100 notes weighs 10 kilos (22 pounds) and fits in a shopping bag



SOURCE: Federal Reserve

While these facts are interesting, they bear out a disturbing trend. The $100 bill serves as the de facto currency of all black-market transactions globally. That means that people involved with money laundering, terrorist financing, arms dealing, kidnapping, bribery, mercenaries, contract murders, gambling, drug money, sex slavery and many other illegal transactions choose the $100. The news isn't all bad for the $100, according to CBS News: the $100 tested relatively cocaine free when compared to the smaller valued bills in circulation.

War Against Ben

The issue for law enforcement, which becomes the issue for banks, is the constant adding of regulation and requirements for compliance checking. This is needed to prevent the almost inevitable use of the $100 for illegal gains. Counterfeiting has kept pace to the point where even the banks cannot identify a fake note: not even the so-called Super Note is safe from forgery. This is like an arms race with each side matching its advances and changes to the printed banknote. There are now calls in political circles, and not just in the U.S., to eliminate the $100. The idea is that this will make it harder to move the amount of cash that illegal operations generate. This should be a real concern for many people. It is a way for the government to force people to turn in their saved cash for new bills. This is also presenting the U.S. government with a tax revenue opportunity. People who are using the $100 banknote to avoid paying tax will see no sense in hiding that which no longer has value.

Cash, Criminals Best Friend

The compliance issue for the banks is huge and is a function that – for them – provides no revenue only expense. We have seen the banks become greedy for fee revenue. Fees are earned without using the bank's capital. This indirect income can be used to offset the cost of compliance. RegTech and compliance checking companies have boomed based on this constant flow of regulations that the banks must adhere to. KYC and KYCC are the acronyms that run the banks now in a vain attempt to reduce the criminal use of money. In years past people would brag that “Cash is King”. Try taking a large amount of cash into the bank today. You will be lucky not to end up in jail or, at least, wasting a massive amount of time answering very intrusive questions.

Bank tellers are now trained on profiling people that bring cash in. I was at a bank training session a few years ago and the trainer brought in a bag of money that was scented like marijuana so that the bank employees could identify a potential drug dealer or smuggler. Even if they do not say anything to you, the bank can fill out a SAR (suspicious activity report) on you and even put a block on any accounts with your name, be it business, personal, or retirement-related.

Benji's, Or Gold

Over the course of human history, there have been relatively few stores of value as stable as the U.S. dollar has been over the past 100 years. The currency is backed by the U.S. Federal Reserve with the $19 trillion economy it represents, and with over $5 trillion held as reserve assets by foreign central banks. This relative strength means that when you have a dollar in your pocket, you can be confident in its value. Except, that is, when the bill you have isn't actually a dollar, but counterfeit – or maybe in future eliminated from use – like the $100 – may be.

In other words, the haven of dollars is not so safe. If we look closely through history the most secure store of value has always been Gold.

Interestingly, during 2018, central banks bought more gold, a record amount, than any year before. This reversed a trend of central banks buying less gold each year for the last decade. Together with this there has been less gold mined each year since 2013. There has not been a new goldfield with over 5-million-ounces found since 2014. Each year before 2014 there have been several finds in the 10-million to 50-million-ounce range – but not in the last five years. The price of a kilo of gold has increased since last year from $39,000 to $42,000.

In short, the gold demand is up, and the supply is shrinking – which, according to the rules of supply and demand, means increasing value. All of this tells me that now is the time to consider an investment in gold.

The times are changing and many of the new trends are represented by Benjamin Franklin, the $100 man.

I have added here some of my favorite famous sayings from Ben for added perspective:

"Early to bed and early to rise, makes a man healthy, wealthy, and wise."
"Halfwits talk much but say little."
"God helps those who help themselves."
"One today is worth two tomorrows."
"Three may keep a secret, if two of them are dead."
"A penny saved is a penny earned."

EDITOR'S LETTER

COVER STORY

INNOVATION CORNER

PUBLISHER'S LETTER

LEAD STORY

INTERVIEW

DIRECTORIES

FEATURED STORY

About Edward Chien:

Edward Chien is AVP, Sales Director Asia Pacific at Compass Plus, an international provider of retail banking and electronic payments software to processors and financial institutions. In his role, Edward is responsible for helping to expand business in the Asia Pacific region.

With over 20 years' experience in the industry, Edward is an expert in payments and retail banking. Before joining Compass Plus, he has worked in other senior roles, selling solutions such as ATM driving, internet banking, card management systems, as well as hardware solutions, in various organisations in Asia Pacific.

TECHNOLOGY AS A DRIVER FOR INNOVATION IN THE ASIAN PAYMENTS MARKET

The payments landscape in Asia is diverse. With almost half of the world's population calling the region home, and huge differences between cultures, it is understandable that meeting the needs of both consumers, merchants and financial institutions (FIs) is far from simple. For example, in Japan there is a preference for card payments, in Malaysia, bank transfers and cash win out, while the region as a whole is the fastest growing for mobile payments and e-commerce. As such, Asia represents an evolving and fast-paced payments environment, which offers both opportunities and challenges for payment service providers and FIs looking meet the complex requirements of the region.

While the banking infrastructure across Asia was slower to develop initially than in mature markets, this has become an advantage for FIs in the region. Many Asian countries have 'leap-frogged' more traditional banking methods in favour of digital payments, and their adoption has undoubtedly been helped by the consumer-led shift towards new technology. The fact that the number of non-cash transactions in Asia is expected to reach 330 billion by 2021 – more than any other region, according to the World Payments Report 2018, is a testament to Asia's commitment to digital payments.

This readiness to adopt new technology has led to the entrance of new disruptive players, such as fintechs, into the region, directly competing with more established FIs. With such diverse requirements across numerous countries, the Asian payments market is having to evolve quickly to meet consumer needs, and new entrants are more than happy to take a slice of the pie. As a result, Asia is emerging as an innovation hub for payments, focused on making payments faster, cheaper, more transparent and reliable.

The challenge for traditional FIs can be encapsulated in one word – speed. Consumers are witnessing an ever-increasing rate of innovation from new providers, however, the same cannot be said for their banks. These emerging players are a major threat to traditional FIs as their nimble systems mean they can deliver innovative products and services to the market quickly, leaving more established players out in the cold.

To be competitive in the market today, technology is the undisputed key to differentiation. As such, the underlying payments infrastructure has to be flexible in order for FIs to compete. The evolution of payment platforms – from monolithic mainframes to modular multi-database systems through to open development payments platforms (ODPPs) built on service-oriented architectures (SOA) – has grown banking from an institution-focused enterprise to a more customer-centric business, able to compete with new agile players.

As a younger region in terms of its payments infrastructure, Asia doesn't have the same technological constraints, however, in such a fast-paced market it doesn't pay to be complacent, and modern does not always mean future-proof. ODPPs offer FIs and other payment service providers the tools to achieve and deliver payments transformation. Penned in the industry as the future of payment systems, this architecture is specifically designed to meet the challenges presented by emerging payment technologies.

To keep their competitive edge, FIs need to have the capability to create something quickly and at very low cost. The problem that arises is that most FIs can't do this and those that can invest far too many resources at an extreme cost. Nothing is quick or cheap, not with the technology they have in place. However, ODPPs are agile and offer the development tools required to subsequently deliver products and services to market quickly with reduced overheads.

Technology drives sustainable value: with the right underlying platform, FIs can offer relevant user experiences alongside services that meet the needs of their customers and safeguards their loyalty. In short, they can offer value. FIs that want to truly compete with the new disruptive players in the market need a future-proof system that can drive innovation. It needs to offer them the flexibility to differentiate their business, as well as deal with the unknown future advancements of the payments industry.

The dynamic nature of Asia as an emerging market creates challenges that have never confronted the developed world, but also opens up opportunities for innovation and accelerated growth. The payments market is booming, with an increasing array of solutions and growing number of companies hoping to make payments simpler and more convenient, which puts it in the unique position of really driving innovation at a large scale. It is technology that will redefine the next generation of players in this payments space, as those at the forefront of innovation will have the technological capability to disrupt like alternative payment providers twinned with the reliability of the established players.

THE OPEN BANKING REVOLUTION IN APAC: REDEFINING AN INDUSTRY

FINASTRA

A combination of compelling forces is driving the uptake of Open Banking across the world. They include industry regulation; powerful technologies and processing capabilities; customer-led innovation; and the rise of Fintechs. All topics set to form insightful discussions at Money 2020 in Singapore this year.

In the UK and Europe, the primary accelerator behind Open Banking started out as regulation, such as the Second Payment Services Directive (PSD2). Banks in the region are now required to open up their payments infrastructure and customer data to third parties, which can then develop apps and services for their customers.

In the more diverse APAC marketplace, the drivers behind the uptake of Open Banking vary between different countries, with regulation still playing a part, but banking association initiatives and sector consultations are also driving adoption.

In 2016, Monetary Authority of Singapore (MAS) was the first regulatory body in the APAC region to publish guidelines on Open Banking and to map out a plan for banking data to be made available through open APIs.

Elsewhere, in January 2018, the Hong Kong Monetary Authority (HKMA) issued a consultation on Open API framework, setting out the HKMA's intended approach to Open Application Programming Interfaces (API) for the local banking industry. As a result, the HKMA published the Open API Framework for the Hong Kong Banking Sector on 18 July 2018.

In May 2018, Australia released Guidance for Open Banking, requiring the country's major banks to make data on credit and debit card, deposit, transaction accounts, and mortgages available to customers during Q1 2020.

Smita Gupta is Senior Director of Regional Marketing, Asia Pacific at Finastra, one of the world's largest financial technology companies. She drives Finastra's visibility, sales performance and revenue generation across the region. Smita champions the use of innovative technology in financial services, strategic collaboration within the Fintech ecosystem, as well as the creation of diverse and inclusive workplaces.

In South Korea, the Joint Financial Industry Fintech platform, through which banks and brokerage firms can jointly provide financial information through APIs, is considered as a basis for Open Banking.

And while the Reserve Bank of India (RBI) has consolidated expert opinions on the pros and cons of Open Data, firm guidelines around Open Data and APIs are not expected before 2020.

Whichever approaches are taken by different countries, it is clear that the end result will be banks' ability to provide more collaborative, innovative, and responsive products and services.

Indeed, the Finastra Open Banking Readiness Index for APAC, which measured 146 banks across 14 APAC markets on their progress towards Open Banking readiness, showed that the region as a whole is performing well.

The key ingredients of Open Banking, as defined by the Index, are:

- Adoption of external/partner APIs
- Collaboration with Fintech ecosystem and third-party providers
- State of data-based transformation in banks
- Data monetization
- State of innovation and innovation structure

The benefits of Open Banking to banks, their customers and their partners

Open Banking is about empowering customers and responding to their expectations for a higher quality, more insightful service, while simultaneously having the potential to extend a bank's products and services beyond traditional banking.

Banks can do this by building applications that have advanced layers and can be opened up to third parties, blending services and information sources. Banks can also increase reach through multiple channels and find new ways to meet unserved and underserved customers.

With greater reliance on customer data, banks can generate deeper consumer insights and create a value proposition that enhances their products and services offerings. And with the help of more agile external partners, banks can develop new products and services quickly, as well as ensure that when market dynamics change, innovation projects keep pace.

Michael Araneta is Regional Head of Research for IDC Financial Insights, which collaborated with Finastra to develop the Index. He explains: "Open Banking is a rare change for banks to unbundle and re-bundle the value chain of financial services so products, services, data, and functionalities can be consumed and provided by third parties. This will fundamentally change the way banks will rethink products and delivery channels, so that they are able to transform customer engagement."

According to the Index, the APAC region is well-placed to take full advantage of the Open Banking revolution. Eight in 10 banks surveyed believe that collaboration with external partners will be a critical factor in their success.

Platformification, a business model adopted by industry sectors as varied as food delivery, retail subscriptions, transport and short term lets, is another important factor. The majority (85 percent) of Asia-Pacific's leading banks agree that a platform-based approach is critical in successfully combining customer expectations with business and technology capabilities.

Leading from the front

The majority of banks in Asia-Pacific are expected to ramp up their Open Banking capabilities between now and 2020, but progress so far varies between different countries.

Technology forerunner Singapore is leading the charge. The Index shows that higher adoption of APIs, bank third-party partnerships, and advanced data-based transformation and innovation were primary factors leading to Singapore ranking as the most advanced market in comparison to other countries surveyed.

Known for its ambition to become one of the world's leading Smart Nations, Singapore is at the forefront of providing the infrastructure and sandbox environment that support fintech innovations. Banks in Singapore are harnessing integrated platforms such as APIs and cloud technology to build financial services around their customers' lives. Common APIs and guidance on security standards and governance models can be found in the "Finance-as-a-service API Playbook" from the Association of Banks in Singapore and MAS.

Singapore's Open Banking readiness score out of 10 (8.1) is followed by Australia (7.1) and Hong Kong (6.6) as the second and third leading markets in the APAC region, categorized by the Index as Early Adopters.

The countries dubbed as the 'Steady Warm-ups' include New Zealand, South Korea and India, where official regulatory guidance has yet to be released but industry consultation is well-underway.

'Fast followers' include Thailand and Malaysia, where select banks are leading the way and regulations are in draft stage. Japan and China are categorised as 'Giants with Potential', while the remainder, Taiwan, Indonesia, the Philippines, and Vietnam, are still in the early stages of developing both market regulation and industry initiatives.

The APAC financial services industry is in the process of being redefined by the principles of Open Banking. The countries that have spotted the potential of collaboration and open data, powered by technologies such as cloud and APIs, and ease of integration of new functionalities, are seizing early mover advantage, but those following on behind will have the benefit of learning from those first adopters' experiences.

Visit Finastra on booth F50 at Money 2020 Singapore.

PAYMENTS DISRUPTION WHAT NEEDS TO BE BALANCED AGAINST WHAT?

Digitalisation and the development of new payments services continue to be an area of disruption and opportunity. The reshaping of the landscape towards instant payments and digital payments emphasises the need to balance customer convenience and speed with security and new levels of operational risk and control. Payments capabilities are the fuel of the economy and enable individuals, companies and financial services to transact both in the commercial and personal worlds.

The regulators continue to require superior business controls, and the changes in volumes and risk mean it is appropriate that controls such as reconciliations of inter systems transactions, intercompany transactions and associated fees and billing are in place. Banks need to strike a balance between the need for speed and scale over the need to manage operational risks including revenue leakage. The regulators have an ever-increasing number of requirements, although challenging, they provide real opportunities for new digital payments players.

The use of business controls using the primary tool of reconciliations can readily be justified from both a cost point of view, a revenue protection point of view or for reputational risk and regulatory exposure.

Payment controls offer:

- Banks – issuers and acquirers alike – the ability to manage considerable operational risk as transaction levels and associated values are growing so fast
- Fintechs may set aside controls for a future date as they grow their business, however the cost of incorporating them increases enormously as their business accelerate; so putting them in place early is preferable – both to investors, customers and regulators
- Exceptions based operations of card payments means lower costs through highly efficient automation where processes can be more closely examined and controlled – especially during service disruptions
- Leakage of cash through incorrect charges can be identified and brought under control
- Compliance for managing the complexities of cross-border payments

Payments and credit cards also continue to represent a profitable segment for banks. But, faced with increased regulation and competition from smaller, nimbler fintech firms, banks have had to innovate to develop new revenue streams in their customer-facing businesses. Banks globally, will need to ensure greater control over their data and its reconciliation as digital payments and open banking makes this aspect much more volume-heavy. The large volumes of data require greater automation, especially from a regulatory point of view, as banks are increasingly required to run their systems with a higher level of supervision and management over transactions.

SmartStream's TLM Aurora is a next generation digital transition platform, helping banks move from legacy platforms into the digital marketplace for financial services, while incorporating new operational capabilities in the process. The platform demonstrates the new generation of integrated operational control, enabling businesses to monitor and track real-time developments and challenges instead of just end of day targets. TLM Aurora builds on SmartStream's industry leading reconciliation platform. It is the first new module that incorporates the latest industry standards in digital payments, including SWIFT GPI, RTGS (real time gross settlement), and blockchain-based networks. The platform supports organisations in performing operations like SWIFT and SEPA transfers, mobile, cash and card payments, digital currencies, settlements and reconciliations. TLM Aurora helps banks assert real-time operational control, proactive exception management and a low total cost of ownership in advancing their digital service offerings. It supports organisations at every stage of growth and can scale to grow with businesses of any size.

According to Roland Brandli, TLM Aurora product manager at SmartStream, regulators will place greater scrutiny on the transaction fees involved in digital payments given the number of intermediaries involved. The payments business has historically not been very transparent. However, as central banks attempt to encourage a shift from a cash-based to a digital economy, there is a need to foster greater trust in digital payments among the general populace, which means greater transparency and fairness for customers. "Importantly, given the large volumes involved, it becomes more challenging for banks to have robust controls over transactions and transaction data, even as the regulatory scrutiny in this area goes up," says Brandli. Most regulators have turned their focus on integrity in terms of data processing, accuracy and timeliness in a bid to identify fraudulent activity or sanctions violations, he adds.

Roland Brandli,
Product Manager, TLM Aurora, SmartStream
Strategic Product Management

Roland Brandli has worked for SmartStream for over fifteen years. Roland began his career at SmartStream as Professional Services Consultant in Europe, moving on to become the Head of Consulting, Emerging Markets. During this time, Roland was an integral part of a variety of successful project implementations across Europe and the Middle East. In his current role as Sales Director for the Europe, Middle East & Africa, he introduced SmartStream's brand and solutions across the entire region. As a result of the success he had in this region, Roland has recently took over the Strategic Product Management for SmartStream's TLM Aurora Solution Suite. Roland has vast experience of the Financial Services industry and before working for SmartStream he held a number of leading positions in the back office and operations departments of banks in France and Switzerland.

PRIORITISE EXPERIENCE TO WIN LOYALTY

In today's ecommerce market, simply having a website or app isn't enough. You could be selling the best product in the world, but if your platforms aren't properly optimised, sales will suffer.

Welcome to the experience economy, where the customer journey cannot be underestimated, and retailers must find new ways to stand out from their competitors. With online now accounting for 20% of retail transactions and shoppers having more choice than ever, competitive advantage doesn't come from having the biggest budget, the coolest campaign or the most dazzling discount. Today, loyalty comes from treating your customers as partners. It's crucial that you listen and learn from them if you are to give them the best possible experience.

It boils down to this: Are retailers offering customers what they want, when and how they want it?

From alternative payments and online chatbots to in-store adoption of VR — there are a host of technologies that retailers could harness to enhance customer convenience and attract and retain their attention. As consumers become more discerning, the key to success lies in perfecting the overall user experience — from start to finish.

Remember, experience is the new loyalty

Shoppers are quickly bored if they're not inspired or impressed with the shopping experience. In ecommerce, this boredom leads to dropped baskets and negative experiences. In fact, research we carried out among over 1,000 UK consumers showed that 68% of UK shoppers have abandoned a basket online — and well over half of those baskets were recoverable, it's a big opportunity for savvy online retailers.

Retailers need to think creatively about adding value to the shopping experience by surprising and delighting their customers. For example, online only fashion retailer ASOS has a well formatted landing page both online and in-app. As well as the traditional shopping pages, they also have an 'inspiration' page with tips and suggestions about the latest consumer trends. In addition, the keyword search on their website is hyper accurate and typos are automatically corrected. Such seemingly small things make a big impact and help propel the online experience to the next level.

Consumers today have come to expect a personalised experience while shopping online, tailored to their individual needs, budgets and mindset. This includes features like product recommendations, one-click purchasing, and alternative payment methods. With competition at an all-time high, ignoring user experience will see retailers fall by the wayside — losing the battle for the consumer.

Payments choice removes friction

As the last step in the purchasing journey, the checkout is one of the most valuable. However, while many retailers put considerable thought, effort and investment into guiding customers through to checkout, it's too often the case that they are let down at the final hurdle.

As a trusted payments provider to some of the UK's biggest retailers, we know that success depends on making the checkout as seamless and pain-free as possible. For today's on-the-go shopper, a complicated, non-mobile optimised experience with many steps and forms is an instant turn-off. The result? Dropped baskets and lost sales.

Today's shoppers aren't a patient crowd. With innovative technology in the palm of their hand, they are now used to getting what they want, when they want it. Alternative payment options — such as Klarna's — which allow shoppers to pay for their items after delivery, giving them the opportunity to 'try before they buy,' are a great way to help secure customer trust and loyalty. Such options also help bridge the gap between online and offline retail — bringing the convenience of the in-store changing room to customers' doorsteps. Merchants should also consider offering the ability to pay over time. This allows customers to spread the cost of their purchases into equal monthly payments, meaning they can get the latest jacket or pair of shoes at any time of the year — giving them control and boosting purchasing power at the point of sale.

Factor in international shoppers

International online shopping is skyrocketing. For instance, Statista revealed that global ecommerce sales are due to amount to $4.9 trillion by 2021. Meanwhile, Accenture predicts that over 200 million Chinese consumers will be cross-border shopping by 2020 — generating a total transactional value of $245 billion. Retailers wanting to get their hands on a piece of this lucrative pie must ensure that buyers in every market have easy access to their preferred local payment options, as this will help build trust and loyalty.

While cards are key in the UK, that doesn't hold true for the rest of the globe. Retailers looking to appeal to Chinese customers must ensure they support the most common payment methods used — such as WeChat, UnionPay and AliPay. In Germany, the most popular payment option is Klarna's online bank transfer. Retailers need to familiarise themselves with the habits and preferences of markets they are hoping to conquer. If they don't, success will be out of reach. Additionally, making sure that prices are shown in local currencies will remove the hassle of shoppers having to convert prices independently. For today's time-poor shoppers, these details can mean the difference between a sale and a dropped basket.

Ultimately, no matter what country you're in, one thing holds true; we are living in the age of the consumer. Everything — from browsing a website to checking out — must be seamless and swift to keep consumers returning to brands. Ensuring that customers have a positive experience from start to finish is vital.

Luke Griffiths,
General Manager,
Klarna UK

EXPERIENCE IS THE NEW INCENTIVE: HOW CARD ISSUERS CAN ATTRACT, RETAIN AND GROW CUSTOMERS

We all know that if payment cards are top-of-wallet, the customer becomes more profitable to their issuer. But with so many cards on the market today, how do banks stand out from the crowd? Rewards and loyalty still play a role, but increasingly they're table stakes in the battle to attract new customers and grow the profitability of current users. Instead, lenders are looking at new ways to improve the consumer experience by tapping real-time data and the mobile-first behaviors of card users.

Their ability to offer unique services above and beyond the norm, enabled by a new generation of middleware providers, will increasingly determine the winners and losers in this highly competitive market.

From table stakes to competitive differentiation

Gaining new card customers is hard. Banks are increasingly looking to embed acquisition processes in non-traditional channels, hoping to piggy-back on popular consumer activities, like taking an Uber ride, shopping in a particular supermarket and so on. Instant onboarding is key to success in this regard. But attracting new customers like this may be too narrow a strategic focus. The bottom line is that customers can be the greatest brand ambassadors your company will ever know. So, driving loyalty and satisfaction among existing customers becomes key. In so doing, you not only increase their profitability but also have a great chance of pulling in new customers impressed by their advocacy of your products.

Banks are under pressure to generate profitability from card users. But loyalty and rewards alone will not do it. Customers increasingly expect such offers from their providers and are swamped with so many, it's almost impossible to stand out from the crowd. As Deloitte says: "securing customers' loyalty goes beyond having a loyalty programme. Loyalty is the brand's ability to be 'top of mind' in a customer's head as well as to secure a sense of allegiance from consumers."

This is where a focus on the customer experience comes into its own.

Turning mindshare into wallet share

There was a time when engagement between card issuer and customers happened frequently. But today, thanks to mobile wallets, one-click payments and the like, these opportunities are dwindling.

This needs to change. Banks need to get better at understanding their customers and then offering services contextually in a highly personalized way. Their ally in this process is real-time data, combining purchase history with location and other information to transform the customer experience.

Just landed at a foreign airport? Maybe you get an alert to buy travel insurance, or for local car hire companies. You may even get reminders of restaurants previously visited in the area. Perhaps after making a major purchase, you get a notice asking if you'd like more credit. Offers and incentives built on top of these alerts can work nicely as they become more personalised and useful. It's not about blindly peddling offers but on being a trusted advisor, providing useful, contextualised information to enhance the cardholder's experience.

We need to challenge the assumption that somehow you have to buy the loyalty of your cardholders. In fact, just by offering useful advice you could be laying the foundations for long-term profitability. The more meaningful the advice you can offer, the greater the mindshare. The greater the mindshare, the greater the wallet share.

Consumers in control

This plays into a wider narrative about evolving consumer behavior. When we started out several years back, it was a struggle at times to convince the financial service industry that cardholders wanted to be in control of their spending. Now it's the number one driver for issuers. By offering customers enriched contextual information linked to their location, you empower them even further to make informed purchasing decisions.

We know the banks get it: that's why they're spending billions on digital transformation. But getting this real-time access to data can be a challenge, especially for smaller providers who are reliant on a multitude of card processors running potentially legacy architectures. This is where third-parties offering middleware provide the missing piece of the jigsaw puzzle. This technology sits between digital channels, providing that experience-as-a-service platform lenders need to drive growth.

The industry is gradually opening up, in part driven by new regulations in regions like Europe. Banks and issuers need to embrace this new API-driven era to create mobile-first experiences their cardholders will love. That's the way to succeed in an increasingly unforgiving marketplace.

Rachna Ahlawat,
co-founder at Ondot.

Rachna Ahlawat co-founded Ondot Systems, Inc. in 2011 and serves as its Executive Vice President. At Ondot, she is responsible for driving international growth, along with managing the product direction, strategic customer relations and processors partnerships.

GETTING CASH FLOWING FOR EVEN THE SMALLEST ASIAN MARKETPLACE SELLERS

As payments providers and FinTechs head to Money20/20 Asia, Anders la Cour, co-founder and Chief Executive Officer of the ground-breaking financial utility, Banking Circle, looks at the challenges facing marketplace sellers and outlines how disruptors can provide a solution.

Since the beginning of the global financial crash business lending has been a challenge around the world. Banks in all regions have struggled to lend to any business, let alone what are often perceived as riskier start-ups and SMEs, which of course make up a considerable proportion of marketplace sellers. Yet, if these businesses cannot access necessary finance, this could have a detrimental impact on their business; they may have to let employees go, they could find themselves unable to pay suppliers or worse, this could cause their business to fold. In turn, that impacts the economy, which reduces lending, and could even put companies out of business and people out of jobs.

The economy needs SMEs. Consumers need SMEs.

One of the challenges is that, as Louise Brett, Head of FinTech for Deloitte put it in 2017[1], "...for almost a decade, banks have been given the ultimate mixed-message: 'lend' and 'don't lend'. Regulators want them to be less risky, but politicians don't want to see small businesses starved of funding."

With the increasing use of the latest risk assessment technology, and automated lending decisions, SMEs have suffered. Banks are closing branches, and as a result many companies have lost access to the experts who understand their business and can fairly assess their risk to make an informed lending decision. Traditional banks no longer have the resources to scrutinise every application in this way.

Of course, such a labour-intensive assessment process came at a cost, excluding many Asian businesses even when lending was more readily available. A new solution is urgently required. But it cannot be the same offering, delivered in the same way it has been for generations, through the traditional legacy systems which add time and cost.

Businesses today move quicker than ever before, and their finance options need to keep up. For a business lending solution to be cost-effective and meet the needs of even the smallest microbusiness, it needs to be built with those companies and their specific requirements at their heart.

Identifying the challenges

Last year Banking Circle commissioned research amongst those responsible for finance decisions in over 500 SMEs of all sizes. We wanted to find out about the pain points in today's business borrowing journey.

Of our respondents, 92.5% had cause to seek finance within the past five years, and just 13.5% experienced no problems with the process. More than half (52%) of the SMEs needed finance to purchase essential equipment for the business. 35% hoped to borrow so they could buy stock and 28% needed help to expand into new markets.

The challenges these SMEs faced focused primarily around rates, fees and speed. 35% said their bank didn't offer the best rate; 28% found the fees too high; and for 23.4% and 21.4%, respectively, the speed of facilitation of the finance and even speed of response from the bank were a problem. 18.8% found that their bank didn't offer the length of loan they wanted, demonstrating the inflexibility of traditional banking systems.

Any of these issues has the potential to exclude a company from fair and affordable access to the finance required for business prosperity or expansion. A quarter (24.6%) of the SMEs said that without additional funding they would have to let employees go. 13.3% expected that the business would not survive without access to extra finance.

Tackling the payment gap

Of course, many firms would not need a business loan if they received faster payment for goods and serviced delivered. Payment terms and settlement cycles with online marketplaces can take as long as three months before payment is received – and the ever-present spectre of late payment can stretch that gap out even further. The seller has incurred the costs of the order – production, shipping and essential business costs such as rent and salaries – and the wait for incoming payment can seem interminable.

[1] https://www2.deloitte.com/uk/en/pages/financial-services/articles/changing-world-of-sme-lending.html#

Anders la Cour,
Co-founder and Chief Executive Officer,
Saxo Payments Banking Circle

The Asia problem

To make matters worse, Asia does not have the same facilities as other regions to process payments quickly, such as SEPA in Europe. The banking system is somewhat disjointed, with 16 banking systems operating across APAC, which leads to further delays.

Unlike the world of consumer payments in Asia, which are being rapidly simplified through mobile and social payment solutions, businesses are still reliant on complex and slow correspondent banking networks. The disparity between consumer and business payments in the region is no surprise, given that 73% of FinTech investment in the region is dedicated to the consumer market, 24% to improvements to banking efficiency, and only 3% to solving payment issues faced by businesses[2].

Change the status quo

For small businesses, with less flexible cashflow, this could be the difference between success and failure. But what is the answer? A change to the status quo is needed and payments providers and FinTechs heading to Money20/20 Asia could find the answer.

Banks have traditionally been the only viable solution for a business loan, so they are often still the SME's go-to provider for even short-term financial help. However, many Asian marketplace businesses do not meet the lending criteria, and those which do are often hindered by slow set-up, relatively high interest rates and expensive arrangement fees.

Specialist lenders can often provide a more cost-effective, and faster business loan solution. However, many apply very high interest rates which can make repayments a significant burden for a smaller business.

Existing solutions, even those which are newer to the market, cannot provide the scale the global digital business landscape requires, at least not in an affordable or flexible form which will allow businesses of all sizes to grow, succeed and compete effectively. A new generation of innovative, affordable, forward-thinking lenders, able to move quickly without legacy systems holding them back, are entering the market to meet this need, breaking down financial exclusion. And it seems the market is open to these new offerings, whether cash advances on receivables due, or longer-term business loans.

Changing the business lending landscape

58% of respondents to our research said they would approach a non-bank for a loan, if it offered low interest rates, and 44% would do so to achieve lower arrangement fees. New solutions are designed with the customer's needs at the centre, rather than the incumbent's abilities and what fits within their traditional infrastructure. It's clear the market is ready for new providers.

A stitch in time

Financial utilities are able to support Financial Tech businesses and banks in providing their customers with the convenient, flexible and lower cost solutions businesses need in today's market. The systems and infrastructure have opened up allowing non-banks to provide innovative solutions to better serve end users. And financial utilities like Banking Circle can offer business loan solutions that help rather than hinder business success.

As a next-generation provider of mission-critical banking infrastructure – from payments to lending – Banking Circle is providing PSPs around the world with the tools to offer their customers a unique solution to the age-old business problem, that of managing cashflow.

Banking Circle Instant Settlement gives Payment Services Providers (PSPs), Acquirers and FinTechs serving the Asian marketplace sector added-value for their client offering. Through this new lending solution, PSPs and Acquirers can now offer their customers an instant cash advance against invoices due, without the credit risk to the PSPs business, providing them with an additional source of revenue.

With marketplace settlement cycles of up to 90 days on some invoices, merchants can be out of pocket for up to three months after dispatching goods to a customer. This can cause potentially serious problems with paying suppliers, employees and landlords. With Banking Circle Instant Settlement, a lending decision is made instantly, online, enabling the merchant to receive payment immediately.

Through Banking Circle Instant Settlement, PSPs and Acquirers can offer Asian marketplace merchants receivables financing, and immediate access to cash from invoices due, without them having to wait for the buyer or marketplace to pay. Whether the merchant needs to pay suppliers, refurbish premises, invest in marketing or increase head count, a quick and simple advance on payments due could make the difference.

Banking Circle Instant Settlement can provide the essential stepping stone to get the business through without the long-term repayment commitment of a business loan.

The full results of the Banking Circle SME study are included in the white paper, 'The epic business loan battle: SMEs fighting for finance', which can be downloaded at bankingcircle.com.

---

[2] *Source:* Banking Circle white paper, Payment Painkillers for Asian PSPs: Identifying the opportunities and tackling the challenges for Asian businesses making payments into Europe, March 2018

thunes
smart. transfer. solutions.

THUNES: DELIVERING SMARTER PAYMENT SOLUTIONS FOR EMERGING ECONOMIES

Today, there are still more than 1.7 billion adults worldwide who lack access to any sort of formal financial services. Many still transact exclusively in cash and have no safe way to save or invest money. As a result, they lack access to credit beyond informal lenders and their personal networks – something that is especially common across emerging economies.

What this does is effectively prevent individuals from engaging in economic activities that could not only transform their lives, but that can also impact economic growth.

Digital finance is the key to enabling better financial access

In recent years, the global money transfer industry has been experiencing major shifts away from the traditional brick-and-mortar model – where people physically went to stores to send and receive cash – towards more digital money transfers and payments, using mobile devices.

With the growing adoption of mobile phones now hitting over 5 billion users, and the increasing usage of mobile wallets, the appetite for cross-border money transfers and alternative payment solutions shows no signs of slowing. This is especially prevalent in emerging economies across Sub-Saharan Africa and South Asia where demand for financial services is high, yet the penetration of banking services is low.

The importance of financial access in emerging economies

Having access to digital financial services across emerging economies brings many benefits.

- It helps to facilitate ***financial inclusion*** by providing financial access to the world's unbanked and under-banked population
- ***Encourages savings*** by helping to reduce poverty and facilitates a safer way to save money
- Creates ***business opportunities*** as microfinancing becomes more accessible

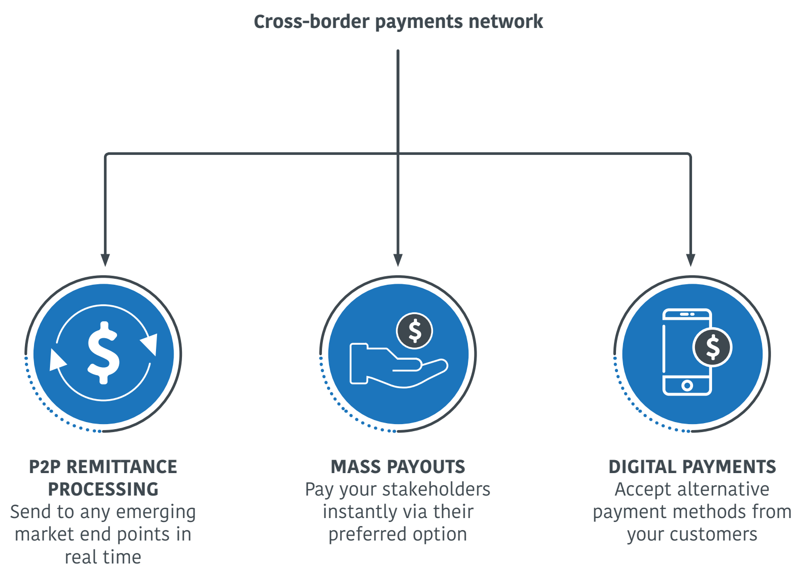
What's more is that using digital channels rather than brick-and-mortar branches dramatically reduces costs for providers and increases convenience for users.

Essentially, it opens access to finance for people at all income levels and locations. For businesses, digital payments and digital financial services can erase huge inefficiencies and unlock significant productivity gains.

Thunes is creating greater financial access for better economic inclusion

Thunes (previously TransferTo) is a B2B technology service provider that operates a

thunes
smart. transfer. solutions.



cross-border network and delivers smarter payment solutions for emerging economies. The company has an active global network that reaches over ***80 countries*** with more than ***9000 interconnected payout partners*** and has processed ***over USD 3 billion in transactions***.

Thunes aims to leverage technology to disrupt the existing financial system with a mission to help solve one of the world's more pressing problems – to help make financial services more accessible, and available to everyone.

This goal is made possible through the global network that Thunes operates which interconnects diverse payments systems that accept traditional and alternative payment solutions. This enables Mobile Wallet Operators, Corporations, Merchants, Money Transfer Operators, and Banks to facilitate the real-time movement of funds to and from emerging countries.

As a result, the unbanked and underbanked populations are offered access to a new type of digital finance and become better connected to actively participate in the global economy.

Creating a single connection to emerging markets

Thunes offers three efficient and cost-effective payment solutions:

- ***Person– to-Person (P2P) Remittance Processing*** – Interconnecting financial institutions and digital financial service providers, enabling the seamless movement of funds to and from emerging economies in a fast and secure manner.
- ***Corporate Mass Payouts*** – Businesses can expand their presence to emerging markets while Thunes seamlessly manage their cross-border payments. Opt to pay multiple recipients in different countries using various payment methods and multiple currencies.
- ***Digital Payments*** – Accept alternative payment methods from your customer. Thunes links digital wallets into its network to make it possible for consumers in emerging economies to have access to alternate payment systems.

Partners can connect into the entire Thunes network through a single API connection. The company's APIs enable real-time transaction processing across the global network with a full suite of services from integration through to reporting. All of which is managed in-house by an experienced tech team.

Thunes adheres to a comprehensive compliance program and is an authorised payment institution by the FCA in the UK (License #720167). The company's compliance program ensures full partner due diligence, transaction and end-user monitoring with detailed activity reporting.

Through the company's innovative technology and extensive global network, partners are able to scale their business globally, reach new markets and enable greater financial access for those that need it most.

For more information, please visit *www.thunes.com* or drop the team an email at *info@thunes.com*.

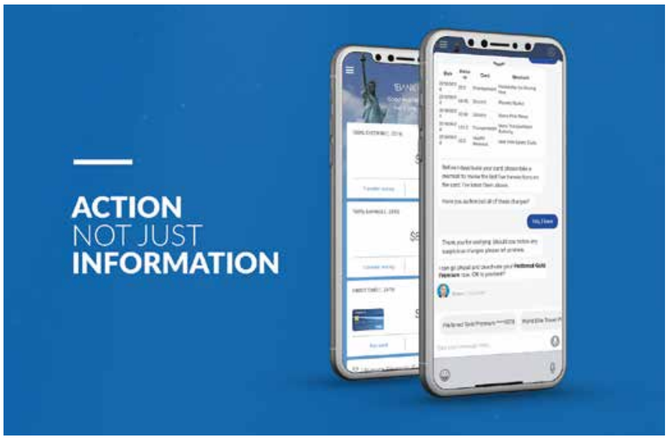
AI-POWERED ASSISTANTS IN BANKING

WHAT IS THEIR BUSINESS IMPACT?

An Interview with Johan Toll, Director of Enterprise Transformation, IPsoft.

Financial IT: What drives financial institutions to apply AI powered assistants today? What is the business impact of virtual agents?

Johan Toll: Transformation in retail banking is accelerating and consumer priorities are changing. How they want to connect with their banks, and through what channels, has financial institutions rethinking and redesigning every interaction that touches their customers. Many banks initially explored chatbots to provide the 'always-on' customer service that consumers crave. However, their lack of true understanding and flexibility make chatbots not much better than Interactive voice response (IVR) technology. To deliver true ROI from their intelligent investments in customer-facing services, banks are increasingly looking to AI-powered cognitive assistants that are able to deliver an immediate, user friendly, and expert service 24/7/365.



Financial IT: What is the difference between simple chatbots and cognitive assistants in retail banking?

Johan Toll: Rule-based chatbot and static web interfaces are built around simple keyword recognition, but cognitive assistants, like Amelia, discern human intentions from a wide spectrum of different conversational phrases — everything from "How much money is in my current account?" to "How much is in my current account?" to "So, how much money do I have?".

In addition, unlike simple chatbot solutions, cognitive assistants have the ability to switch contexts mid-conversation. For example, if a customer is applying for a new credit card but realises mid-way through the conversation that they want to use a different email address, they can go back and change addresses without beginning the whole process over. For example, stating "Actually, I want to use joe@joesmith.com as my main contact." This ability to switch contexts is something human agents handle easily, but something with which many chatbot and virtual assistant solutions have struggled with to date.

Financial IT: How does IPsoft help banks to engage with their customers? AND Why customer-facing roles in banking will transform into a hybrid-workforce of human and digital colleagues? Do you have an explanation why consumers prefer a virtual assistant to a human? (combined response)

Johan Toll: It is not a question of consumers preferring a cognitive assistant over a human agent – but what that human agent can achieve with the support of a cognitive assistant.

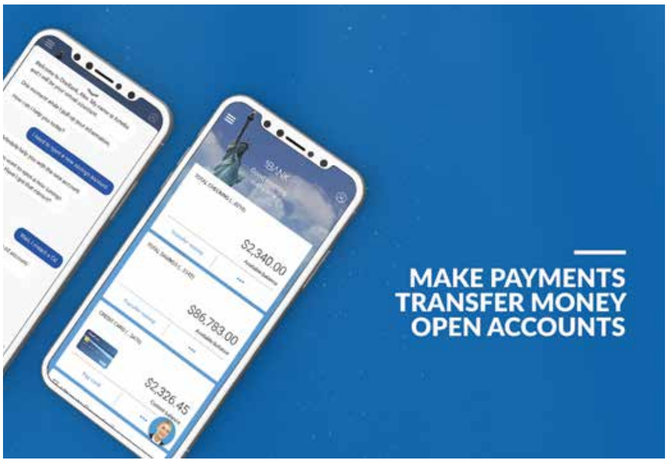
Firstly, as delivered by our new 1Bank conversational banking solution, the cognitive assistant supports human agents by relieving them of simple tasks, so they have more time to spend with customers on the complex and emotionally charged interactions. In these simpler interactions, it is often preferable for the customer to interact with the cognitive assistant as it avoids long wait times and laboursome authentication processes at the beginning of each interaction.

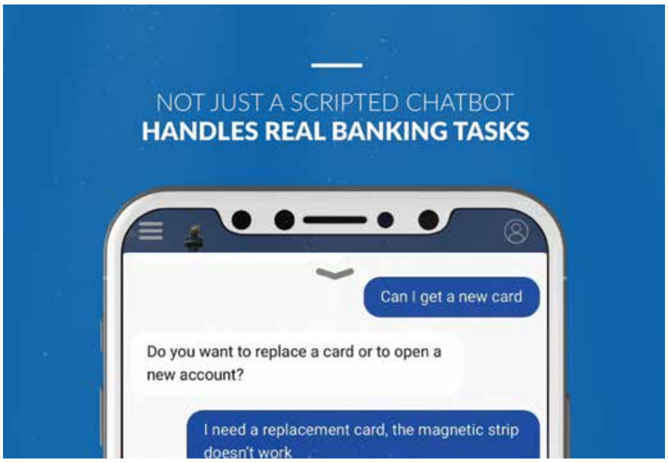
However, it's also important that a cognitive assistant is cognisant of its own limitations and responds accordingly. For example, Amelia is able to identify requests that go beyond her abilities to pass-on to human agents, as well use her emotional intelligence to flag interactions where the customer may be angry or upset and would respond better to human agent.

The second approach is to use the cognitive assistant as a whisper agent for human service providers. At Allstate Insurance, for instance, Amelia leads call centre employees through step-by-step procedures to help answer a variety of customer questions, including policy and policyholder information. This helps the contact centre workers provide more consistent and compliant responses quicker, as Amelia can help them quickly identify any information that they may need.

Financial IT: How cognitive assistants are making retail banking more personable amid extensive branch closures? AND What is Conversational Banking? Can we state that "Conversational banking is a new reality"? (combined response)

Johan Toll,
Director of Enterprise Transformation,
IPsoft





Johan Toll: The first phase of digitisation in retail banking has undoubtedly dehumanised the customer experience. Extensive branch closures have driven many customers to online-only engagement with their banks: these are typically un-personalised and unnatural interactions, with the customer needing to use specific words for a positive result with the web interface or chatbot. When the webservices or chatbots don't respond to the immediate need, the frustrated customer must then call – and typically wait – for a human agent to help them. These human agents are typically very time poor, as they spend so much time troubleshooting simple issues, with no time to build rapport.

However, recent advances in AI and increased mobile usage have presented a massive opportunities for banks to change the way they communicate with customers and start having conversations. The shift has meant that banks are not only able to better understand their customer's individual identity, but also start to re-establish their own personal brand identity at every engagement.

Cognitive assistants, like Amelia, present the most advanced and rewarding conversational banking service on the market. Providing customers with a more personalised and natural experience, thanks to its natural language understanding, Amelia can share appropriate responses, execute actions and pass on any complex or emotionally challenging issues to human agents to be quickly addressed. And, the information garnered from these exchanges can inform all further interactions, building a personalised customer profile based on their preferences, current situation and previous engagements to ensure that the service only gets better.

Financial IT: What is the Unique Selling Proposition of Amelia? What are the technologies behind Amelia?

Johan Toll: Amelia is the most advanced and human-like cognitive assistant on the market. Indeed, last December, analyst house Everest Group rated Amelia as No.1 in its report on the Intelligent Virtual Agent Market and she was the only intelligent virtual assistant to receive top ratings across all key dimensions: including its natural language processing and AI capabilities, the breadth of services, language and channel coverage, as well as market success.

Amelia can independently resolve complex customer needs, she understands customer intent and can switch context, mid-conversation. Furthermore, her advanced Machine Learning (ML) abilities enable her to improve over time, providing excellent user experiences.

Financial IT: Please tell us more about 1Bank solution that was launched by IPsoft recently?

Johan Toll: 1Bank is the first conversational banking solution powered by IPsoft's industry-leading cognitive assistant, Amelia. With 1Bank, customers will be able to directly request information and resolve high-level issues directly with Amelia.

With out-of-the box conversational banking skills, 1Bank is trained to understand the end customer and the language of the target audience, not only specific banking terms, as well as to understand common processes. Customers will be able to use natural language to direct Amelia to manage their account, transfer money and pay bills securely and efficiently via a number of convenient channels: including web, mobile app, SMS or digital assistants, like Amazon Echo.

Financial IT: Please give us a real-life case example of applying Amelia within the financial institution?

Johan Toll: At leading Nordic corporate bank, SEB, Amelia has been deployed in a customer-facing role within their website, to help the bank deliver the best possible service to its million plus customers by making it more convenient to submit banking queries online and then resolve them faster. With Amelia, the bank offers customers an opportunity to get an immediate response to their questions, which in turn concentrates the call volume for live human agents on the highest value support areas. Currently, Amelia is handling customer queries such as password resets for online banking accounts, helping users to step-by-step troubleshoot problems with credit and debit cards, and providing the location of the nearest bank. Amelia's response accuracy has reached 80% for on the content she is trained on, while her ability to detect the underlying intent of a customer's query has reached 85%.

Financial IT: Do you have any plans to expand with 1Bank app into Asian market?

Johan Toll: Yes.

Financial IT: What are other areas of utilising Amelia solution?

Johan Toll: The opportunities are endless with Amelia. She already has a diverse client base across industries and geographies, as well as a broad range of use cases, such as technical helpdesk, customer care, finance & accounting and HR.

Stan Swearingen,
CEO,
IDEX Biometrics

IDEX

THE DAWN OF THE BIOMETRIC SMARTCARD AND FIVE KEY AREAS IT WILL IMPACT

The payments industry is set to be revolutionized by biometrics this year. The successful completion of a number of pilot schemes has confirmed that fingerprint biometric authentication is no longer a future fantasy, but more an imminent reality.

Following recent successful trials using smartcards with fingerprint sensors technology across multiple markets, (including Bulgaria, the US, Mexico, Cyprus, Japan, the Middle East and South Africa) the biometric smart card is about to enter everyday use. Key players within the banking industry, including Visa and Mastercard, are already heavily invested in fingerprint biometric technology and are planning for its upcoming disruption in the payments industry.

With mass market rollout on the horizon, here are five key predictions for how biometric technology is set to impact the payment industry.

The era of dual interface

The first half of 2017 reported 937,518 cases of financial fraud, resulting in losses of £366.4 million[1], demonstrating that the PIN is clearly no longer fit for purpose. Recent research from IDEX Biometrics supports this claim and found that 29% of consumers surveyed felt concerned about the use of PINs to keep their money secure, and as many as 70% believed that contactless payment cards left them exposed to theft and fraud. As consumer concerns continue to grow around the security of payments, so too does the need for a personalized, secure and convenient payment solution.

Enter the biometric dual interface payment card – a card with a biometric fingerprint sensor integrated into it with both a micro-processor and contactless interface – removing the need for PINs. Giving consumers the reassurance that their money is safe, as any transactions will require their fingerprint to authenticate them. Dual interface cards with biometric authentication will be available for both contact and contactless payments.

These advances in technology and those within the payments market have meant that the concept of biometric authenticated payments is no longer a

[1] https://www.financialfraudaction.org.uk/news/2017/09/28/latest-industry-data-shows-fall-in-financial-fraud/

novelty. In fact, according to forecasts by Goode Intelligence, nearly 579 million biometric payment cards will be used globally by 2023[2]. The integration of the biometric sensors in payment cards will be one of the next-generation transformative innovations to breathe new life into the payment industry and assist in the fight against payment fraud.

Remote enrolment the answer to mass market adoption

For mass market deployment of biometric smart payment cards to be possible, banking infrastructures must look at the implementation of biometric technology and ensure that this method of enrolment is accessible and convenient for all. The elderly or those with physical health limitations may struggle leaving the house to enrol in local bank branches, and even those who work a 9-5 day can often find making it to the bank in opening hours a challenge.

The latest advancements in remote enrolment of biometric payment cards will mean that the process for biometric payment cards can take place in the comfort of your own home. Card users will be able to enrol straight onto the card by simply placing their finger on the sensor (with the aid of a small device that comes with the card) to upload their print to the card's highly secure EMV chip. There is no need for an external computer, smartphone or internet connection. Once loaded, the fingerprint never leaves the card, thus eliminating multiple attack points.

Biometric payments enabling financial inclusion

Biometric fingerprint authentication will be a vital ingredient for bridging the gap to financial inclusion. Currently, 1.7 billion adults remain unbanked across the globe today[3]. This is for many reasons, from immigration issues, to illiteracy as well as mental health. Those living with dementia are also at risk of losing their financial independence as their short-term memories decline. A fingerprint sensor on the card can take the place of a PIN or even signature, meaning sufferers are able to stay financially independent for longer.

Currently those who lack access to financial services are missing out on many benefits financial inclusion can offer. Fingerprint authentication will remove the barriers to people with literacy issues, or those with memory problems, as card payments will no longer be about what you know, or what you can remember, but who you are.

Biometric authentication will be a simple, secure and convenient solution eradicating the need for passwords and PINs as a form of authentication. However, for it to work as a solution to financial inclusion, banking infrastructures and card manufacturers must work together to reach a price point that enables this technology to be available to all.

Delivering endless opportunities

While biometric authentication technology is already being used with smartphones and passport identification in the UK, there are endless possibilities for the use of biometric smart cards in other areas of our lives. We can even expect to see biometrics branch into Government issued identification and IoT enabled devices.

In fact, a whole host of public services is set to benefit from this secure means of authentication. The use of biometric smart cards within the NHS, for example, could see access to sensitive patient records limited only to the patient themselves. Biometric social benefits cards could control how money is spent and ensure it is accessed by the right person. According to IDEX research, 38% of consumers surveyed would like to see biometric methods of authentication introduced to wider government identification including driving licenses, National Insurance numbers and even passports.

The biometric future is bright!

As the adoption of biometric authentication is embraced it will get even smarter, and further technological advances such as multi-modal or multi-factor authentication will further improve security within the payments sector. This refers to technology that combines a variety of different types of biometrics in order to add an additional layer of security, including persistent authentication. For example, instead of having one single authentication, smartphones could continuously scan features to ensure the correct person is using the device.

Whilst the biometric dual interface smart payment card is set to hit the mass market, the payment card of tomorrow will go beyond just transactions. Biometric smart cards will serve multiple purposes – a payment card, a form of ID for restricted goods and even a loyalty card!

The early days of biometrics, where it was felt to be invasive and a privacy concern are long gone. In fact, according to recent research from IDEX, 56% of consumers surveyed stated they would trust the use of their fingerprint to authenticate payments more than the traditional PIN. And 52% said they would feel more confident if their fingerprint biometric data was stored on their payment card, rather than a bank's central database.

The future is now though, consumers are ready to use biometric fingerprint methods to authenticate card payments and 66% expect their roll out to include authenticating in-store transactions this year. 2019 is set to be the year that biometric smart payment card adoption will go into the many millions!

---

2 https://www.biometricupdate.com/201810/goode-intelligence-forecasts-2-6-billion-to-use-biometrics-for-payments-by-20232

3 https://globalfindex.worldbank.org/

WHY TRADITIONAL BANKS MUST DEVELOP THEIR DIGITAL STRATEGIES TO COMPETE WITH NEW ENTRANTS

An Interview with Emily Camara, multilingual conference manager with a background in retail banking, banking technology and payment cards research.

On 21st and 22nd May 2019, over 500 senior bank executives and industry experts will gather in London to discover how pioneering banks are using self-service and digital banking technology to succeed in an increasingly competitive environment. We caught up with Emily Camara, Conference Manager of RBR's Self-Service Banking Europe 2019, to find out what we can expect.

Financial IT: What exactly do you mean by 'self-service' and why is it so important?

Emily Camara: When we talk about self-service, we aren't just referring to traditional self-serve options like ATMs and banking kiosks; it includes a real mix of different banking channels including digital, internet and mobile. The role of the internet, in particular smartphones, has significantly impacted consumer behaviour and bank customers expect to be able to transact as and when they choose. However, as many banks have still not managed to achieve a smooth transition between the different channels, customer service levels are impacted.

Financial IT: What can 'traditional' banks learn from their digital counterparts when it comes to customer service?

Emily Camara: As new entrants such as Starling Bank and Atom disrupt the market with more flexible online options, traditional banks need to digitise their offerings to ensure that they don't fall behind. In order to compete, it is vital banks provide a seamless transfer across different channels to offer the best customer experience possible.

Financial IT: And how does Self-Service Banking Europe 2019 help banks achieve this?

Emily Camara: Self-Service Banking Europe 2019 brings together senior bank executives, payment providers, hardware and software suppliers and other key players to discuss best practices for extending digital offerings and refining self-service strategies. It is the ideal opportunity for learning, networking and exchanging ideas.

In addition to a high-quality speaker agenda, there is also a dedicated exhibition hall where leading suppliers showcase their latest self-service and digital banking solutions. Exhibitors and sponsors include cloud-native payment experts, change management specialists, ATM hardware and software providers, banking security firms, card schemes and networks.

Financial IT: What are some of the highlights on the speaker agenda?

Emily Camara: RBR events are well known for featuring high-quality speaker programmes with a wide variety of international speakers, and Self-Service Banking 2019 is no exception. Highlights include keynotes from Starling Bank's co-founder and the Deputy Governor of the Swedish National Bank, as well as a dedicated fintech showcase featuring some of the latest technological innovations that disruptive start-ups are bringing into the mix.

The agenda features exciting case studies from banks across the globe, including Wells Fargo (USA), Barclays (UK), KBC Group (Belgium), Isbank (Turkey), Bank Millennium (Poland), Sharjah Islamic Bank (UAE) and Privredna banka Zagreb (Croatia) and topics include mobile and cloud banking, AI, new payment types and digital transformation.

Financial IT: How can people get involved?

Emily Camara: There are several ways companies and individuals can participate in the event. We have a few speaking slots available if anyone has an interesting case study they would like to share, and we also have a small number of exhibition booths and sponsorship opportunities still available. Companies and banks interested in speaking, exhibiting or attending should email me at emily.camara@rbrlondon.com or visit www.rbrlondon.com/ssbe.

Steve Sidwell,
Liquid Technology SVP,
Technology Compliance

PUTTING THE PAST TO REST

HOW DO YOU SUCCESSFULLY REPLACE OBSOLETE FINANCIAL IT

It is surely no secret that the financial sector drives the overall function and success of our global economic performance. In an efficient financial industry, banks, insurance companies, investment funds, and the like help reduce the potential risks or costs associated with providing products and services to consumers, allowing for a certain level of expectation in our quality of life. Behind the scenes however, the financial industry, and its vast web of money managers, are facing a big obstacle. In truth, many of the institutions we rely on to handle one of our most critical assets, not to mention our sensitive data, are being weighed down by their reliance on archaic legacy IT systems.

With each year that passes, the risk of dependence on outdated infrastructure mounts for the financial industry. No sector is immune to the growing pressure of the consumer, who seeks fast, easy, reliable, and cost-effective solutions, especially where livelihoods are at stake. With the growing disparity between contemporary and legacy systems and the surge of applications, like mobile banking and other FinTech solutions, it is time for the finance industry to reboot their IT strategies.

This technological overhaul may be a bit daunting and, like all operational changes, it doesn't come without its risks. However, there are reliable tools of the trade that can help safeguard against failure, making the disposal of outdated IT assets a positive step with rewards across the board.

Risks and Setbacks of Outdated Options

Many core banking systems (CBS) that continue to support the day-to-day functions of deposits, loans, and beyond were installed in the 1970s or 1980s, allowing banks to have central operations that could manage large amounts of transactions. Meanwhile, a vintage programming language, COBOL, or Common Business-Oriented Language, is still used in the United States by the financial sector even though it was created almost 60 years ago. These old-fashioned systems were powerful in their heyday, and are admittedly still very capable, which explains why they were never fully replaced. However, the emergence of new and innovative technologies means that these antiquated systems are significantly less practical than they used to be.

There are a number of ways in which holding on to old-fashioned IT assets inhibits the financial sector. The first being that maintaining old systems is an expensive and time-consuming uphill battle. The number of individuals who know programming systems like COBOL is small. If something goes wrong, it is getting harder to find someone with the know-how to fix it. Additionally, the risks that come with outdated systems and procedures, including the chances of IT failures and even compliance issues, mean that banks are growing ever slower and more vulnerable.

In a world where time is our most valuable resource and speed is one of a business's greatest assets, incompatibility with applications like mobile banking, the popularity of which continues to grow, is also one shortcoming of legacy IT equipment. People no longer want to wait for their transactions. Even as the conventional finance players introduce banking apps, issues still remain with making the connection seamless between these new systems and a company's older infrastructure. This is especially relevant as new-age FinTech opponents grow, garnering US$1.6 trillion in transactions in 2018: traditional financial systems need to innovate to remain competitive in the industry. Aside from this, replacing outdated technology promises to shave down costs and enable organizations to keep pace with evolving solutions and demands.

Out With the Old, In With the New

With any major change, hiccups and missteps are usually par for the course. When the switch is as big as implementing an entire new IT backbone, the risks are even more daunting. Add into the mix the fact that the financial sector customarily manages highly sensitive and confidential information, any reservations about renewing legacy systems and interfering with that data are amplified. These concerns are not without reason, as protecting, storing, managing, and utilizing consumer information is a pillar of the financial industry, and losing it or improperly transferring it would create significant repercussions.

Regulations in finance are notoriously strict, with around 750 regulatory bodies in operation governing the procedures of financial institutions. A study by Statista reports that when asked about the disrupting factors in the global banking sector, around 58 percent of senior banking executives admit that regulatory pressure is an important factor. When decommissioning old technology, regulatory compliance and management of personally identifiable and non-public information becomes an even more complex issue to navigate correctly.

Luckily, organizations don't have to do it on their own. Experienced IT asset disposition (ITAD) specialists are the greatest asset when it comes to the data destruction needs and chain of custody requirements for high-security financial institutions. When accomplished properly with the help of a capable partner, switching to more contemporary IT equipment and disposing of old assets can help financial organizations recoup value while mitigating any risk.

The key is to look for an ITAD professional that has the proper certifications. Finding an e-Stewards, R2 and NAID-certified specialist ensures that the ITAD process is dedicated to remaining environmentally and ethically responsible and conscientious of abiding by the utmost data security measures.

According to Statista, in 2017 and 2018, U.S. data breaches were the third highest in the financial sector. Additionally, in the first half of 2018, financial access data breach incidents were the third highest across the globe. A proper ITAD partner will follow NIST and DOD 5220.22M standards for data erasure and provide a certificate as proof of suitable destruction, effectively safeguarding against these costly and damaging events.

Next, ITAD professionals work to ensure organizations can recoup as much of the original value of their assets as possible through recycling and reselling. This can be achieved through expert experience with asset value windows and variables like MSRP. By effectively taking stock of inventory, scheduling disposition, managing resale, and destroying any vulnerable data, ITAD experts promise to make the move easier and simpler than ever for financial institutions looking to renew and refresh.

Letting Bygones be Bygones

There comes a time when every business must let go of the past in order to adopt the innovative technologies that help our contemporary world function better, faster, and more securely. Now more than ever, finance is feeling the pressure from their customers, and their bottom line, to replace outdated IT systems. While older core systems supported these pillars of our economy dutifully for decades, their time has come. The more antiquated the financial IT assets are, the slower and more vulnerable the banks, credit unions, insurance providers, and beyond become. While letting go of the past is an intimidating endeavor, finding a trusted and experienced partner can take the guesswork, and the risk, out of keeping pace with the future of finance.

OlePay® Software Payment Platform incorporates our proprietary payment solutions, with prepaid cards including prepaid Visa®, prepaid MasterCard®, Union Pay® and Loyalty Rewards systems. Our technology simplifies domestic and international payment transactions in multiple global currencies while ensuring fully compliant transactions. Our security systems include digital facial recognition software, Anti-Money Laundering (AML) data compiling software and an efficient Know-Your-Client (KYC) process that meets and exceeds the banking and government agency requirements.

With OlePay on your team, there are fewer barriers to market entry and fewer costs. Our streamlined solution works for virtually any business in need of payment processing, domestically (US) and internationally. As a multi-currency platform, this independent system can run your entire business via SMS. Communicate, monitor and allow transactions with every customer instantly.

Ole Pay is your global currency to the world.
Join us and get started today!

Available on the App Store

ANDROID APP ON Google play

www.olepay.com

SATELLITE OFFICES | LOS ANGELES - LAS VEGAS - NEW YORK - LONDON - BANGKOK - MANILA

info@olepay.com

3D SECURE 2

HOW CAN IT RELIEVE MERCHANTS FROM THE BURDEN OF PSD2?

PSD2 is a major development in the financial sector in Europe, and it has already had a huge effect on financial security on the continent. The original Payment Services Directive was established by the EU in 2007. The directive helped promote better financial cooperation throughout Europe. It also helped destroy the banks' monopoly on security for online transactions.

The goals of the first PSD were fairly simple. The main goal was to establish rules and guidelines for payment services in the EU. The directive also served to simplify payment processing, promote competition, and foster greater efficiency in all financial transactions. The signature achievement of the directive was creating the groundwork for the Single Euro Payments Area (SEPA). The SEPA then went on to simplify all bank transfers conducted in the Euro. The Eurozone currently has a population exceeding half a billion.

How Is PSD2 Important?

The second iteration of the Payment Services Directive, PSD2, was launched in January of 2018, and it has picked up where PSD1 left off. The second iteration also serves as a major overhaul of both the first PSD, but also for the broader existing financial regulations in Europe. The net result is a reduction in costs, among other things.

PSD2 allows new third-party companies to play a part in the payment security space. Third-party companies can be classified as either Account Information Service Providers (AISPs) or Payment Initiation Service Providers (PISPs). PSD2 also expands regulation outside of Europe with a new category of 'one leg out' transactions. It also helps look after consumers by prohibiting card surcharges, among other changes.

Aside from the regular, broad improvements brought by PSD2, there will also be a huge push to promote SCA (Strong Customer Authentication). SCA is an umbrella term that refers to some of the strongest and clearest security checks in the payment processing space. SCA promotes clear and uniform standards for the most modern checks. These include biometrics, mobile payments, and two-factor authentication. In fact, the SCA requirements necessary under PSD2 are set to be written into law in Europe on September 14, 2019.

How Will PSD2 Affect Banks & Merchants?

The Good

PSD2 is bringing changes to Europe in the form of increased security and inter-European cooperation. The overhaul of the original PSD has brought about changes that will affect consumers, merchants, and banks. For the latter two, the changes will be significant.

The effects PSD2 will have are two-fold. Customers will receive stronger protection from crime and discrepancies on the part of banks. Card surcharges will no longer take place, and security checks will be more thorough. While this may sound great to you if you are in the Eurozone, it will carry effects that may not be so nice for banks, merchants, or even consumers.

The Bad

The authentication checks that will be made mandatory by SCA will not always be the most efficient options. Some of the better checks include a one-time password that is sent to your mobile device or email. Another common check would be biometric (usually fingerprint) authentication over your mobile device or Google Authenticator.

A lot of the checks included in PSD2 and SCA make it very difficult for a cyber-criminal to impersonate you. While that's great, on the flipside, these checks also create more friction during the payment process. The 3D Secure 2 (3DS2) checks that have made so much headway in recent years may not be taken full advantage of by regulators. While 3DS2 checks will become a part of the suite of security checks allowed under SCA regulations, the "frictionless" checks will become all the more important with the passing of SCA into law.

The data has already demonstrated that while some of the strongest checks will keep consumers safer, they come at a cost. Customers often become frustrated with the older, more knowledge-based checks. Checks such as static passwords or questions like "What is your paternal great grandmother's maiden name?" aren't the best options for user experience. These methods are weak and create friction by demanding that people go through the trouble of making note of information that is otherwise useless in their lives. This results in a huge loss, as consumers fail to provide the necessary information to clear the checks. They often become agitated and finally give up on the transaction altogether. This is highly problematic considering that there are better options, which are both stronger and smoother.

Common 3DS2 checks, such as biometrics, require MORE information while requiring you to remember LESS. In the end, you can ultimately have your cake and eat it too. There is no reason to sacrifice security OR ease-of-use for financial transactions. As such, if you are concerned about transferring money in the Eurozone, 3DS2 will become more important to you come September.

What Can Banks & Merchants Do?

Fortunately, there is a better way for banks and merchants to minimize any inconveniences that SCA may cause. There are many 3DS2 options that foster seamless, simple transactions AND increased security.

The first key feature of 3DS2 is ease of use. When a customer is authenticating an online payment through a 3DS2 gateway, they don't need to remember much to be able to complete the payment. Furthermore, your index finger doesn't run on memory so you can carry your password with you wherever you go. Other 3DS2 checks offer similar ease of use.

The second key feature of 3DS2 is increased security. Going into 2019, there is no reason to sacrifice security for ease of use or vice versa. Both biometric and temporary passwords delivered to your mobile device offer great security. They also demand very little from consumers when the time to complete a purchase arrives. All you need is your body and your most commonly used belongings to complete the 3DS2 security checks.

2019 will be a formative year for payments in the Eurozone. While Europe is going through an economically and politically turbulent time, the financial services industry in Europe is currently united in the fight against financial crime. The European Central Bank is in the final stages of phasing out the 500 Euro banknote in an effort to stifle criminal activity. Likewise, there are huge changes coming to digital payments as well. PSD2 is expected to change the landscape and payment regulations will start to have a real effect.

Fortunately, PSD2 and 3DS2 can work together and create a combined effect that leads to a positive outcome for everyone involved. PSD2 authentication will allow European merchants to approve online payments securely by communicating directly with the customer's bank on a 3DS server. This is thanks to 3DS requirements, which it turns out can work very well in combination with PSD2.

Sadra Boutorabi,
Product Marketing Director at GPayments

GPayments
A Neurocom Company

Dager Contreras,
Co-Founder,
Ocular Compliance Technology Pte. Limited

MAKING KYC/AML AFFORDABLE

Compliance with ever changing regulations is tedious and expensive. What is the solution?

Skyrocketing identify fraud has heightened demand for ever-more robust KYC / AML (Know Your Customer / Anti-Money Laundering) diligence in the global battle against consumer fraud, money laundering and other criminal activities.

This activity is propelling banks, financial services, and every day businesses to seek full-service KYC / AML compliant on-boarding frameworks. However, establishing KYC / AML compliant practices is too expensive for 98% of businesses due to high costs in trained personnel, cutting-edge technology, and time-consuming maintenance.

Businesses worldwide have been outsourcing these expensive efforts to a handful of firms that have focused on large enterprises that can afford fees that the exploding small and medium sized businesses simply cannot afford. Ocular Tech was set up fill the gap and create an affordable yet far more advanced solution, Ocular Tech was established.

Ocular Tech was launched in October 2017 as a KYC / AML compliance platform with the goal of using blockchain technology to create a global identification repository system. Ocular, along with the Ocular token (OCULR), is positioned well ahead of its competition.

The future of Ocular and the Ocular Token

Ocular is preparing to expand its ecosystem beyond KYC / AML to include other services such as banking, prepaid credit/debit card issuance, and payment processing. The next phase includes the full use of the Ocular Token (OCULR) as a Discount Token for the various services it offers and potentially expanding to other services outside of Ocular.

The Discount Token model has already been proven effective by various other projects, with the most well-known being Binance (a decentralized crypto exchange). Using this method also reduces speculative purchases of the token and focuses solely on the utility of the token. As the user base expands, the demand for the token increases.

With the developers of Bank-ID, Norway's national identification system, Ocular will begin the expansion of that platform to create a global identification platform. This platform will allow any participant to have full control of their identity and only share such information deemed necessary for a particular transaction – be it opening a bank account, applying for employment, renting space, or applying for insurance. All participant information will always be up-to-date and verified on a continuous basis so corporate or governmental clients can be assured to have the most accurate information about their customer / applicant. By simply providing such entity with the customer's Global ID Certificate, all pertinent information will be at their fingertips expediting what normally takes days and sometimes weeks to a process that will only take minutes to underwrite.

With already developed technology and future planned developments, there is little doubt that Ocular Tech has positioned itself prominently in the KYC / AML compliance industry by offering affordable and efficient solutions.

Ocular is the first and only full service "Regulatory-Technology (Reg-Tech)" platform with:

Unprecedented KYC personalization. It offers:

- 100% real-time customizable on-boarding forms
- 100% branded interface
- Managed web and mobile on-boarding channels via -
  - Amazon App
  - Apple iTunes App
  - Google Play App
- Exhaustive list of AML databases searched
- Inteli-SPIDER for remote targeting and persistent daily monitoring

Ocular offers six essential services:

- Omni-Channel Document Collection (Private and White Label)
- Global KYC / AML with a built in Biometric AML database, including FBI, Interpol and more
- OCU-SPIDER - The Inteli-SPIDER will report back changes to a target's profile such as; when your employee has been arrested, when your customer Tweets about your product, when your competitor has updated pricing
- OCU-NEWS using Negative-NEWS which monitors over 300,000 new English-language articles per day and reports information such as; when an employee has been interviewed, negative or positive news about a customer, when a competitor receives publicity
- PCI/DSS compliant profile storage and management.

NICE · ACTIMIZE

The Future Is Here

Optimize your fraud and compliance operations with RPA from NICE Actimize!

Leveraging Robotic Process Automation results in increased increased productivity and investigation efficiency, while providing new insight into program effectiveness and lowering your cost and risk.

Let your team focus on the work that brings the most valuable results. NICE Actimize will show you how!

info@niceactimize.com | www.niceactimize.com/blog | @NICE_actimize | company/actimize | NICEActimize

THE MOVE TOWARDS **INSTANT GRATIFICATION**

Why consumers will be able to pay anyone they want, immediately and in any currency.

Chau Nguyen has been Managing Director of OlePay and OleGroup since early 2007.
For 16 years previously, he was President of Great Western Group.

The biggest single trend in the world of payments today is the empowerment of consumers. The impact of the well-known M-Pesa money transfer service that is offered by mobile phone companies to their customers in East Africa is an extraordinary example. It is also a key concept underpinning the European Union's revised Payments Services Directive (PSD2), which seeks to promote competition and innovation in the payments industry.

Consumers are not the only winners...

However, the latest generation of payments platforms and solutions do not just thrive because they deliver convenience and value to consumers; they also provide significant benefits to merchants – and, in the B2B world, to corporate treasurers as well. In essence, lower costs, faster payments and receipts, and greater information in real time about cash positions have a positive impact on the bottom line. Large and small businesses integrating their external payments platform with their global supply chain should be able to reduce the cost of generating working capital and minimize financial risk.

Today, merchants or any business working with an external payment processing platform have several options in relation to the financial benefits that are generated. The benefits can be retained, with the result that operating profit is higher than it would otherwise have been. The benefits can be passed-on to consumers in the form of lower fees for payments that are made through the platform. Or, the benefits may be given to consumers in the form of valuable "reward loyalty points".

Loyalty points by definition benefit the consumer. However, they can also be used by the merchant offering them to build brand awareness or to gain competitive market share. In essence, the loyalty points are a mechanism whereby reduced payments costs can easily be used to fund business development. The benefits of loyalty points can be deployed and transferred across a network of participating merchants – which increases the value of the loyalty points and increases the probability that the consumer will actually use those points.

...and banks are not necessarily losers

Providers of payments platforms are often seen as being FinTech disruptors. This is because they are not banks, yet are dedicated to activities that are generally and traditionally undertaken by banks. The implication is that the payments platforms are in competition with the banks and are encroaching in their business. This is partially true.

Payments platforms are better thought of as counterparties to banks rather than commercial rivals. Suppose a payments platform operator transfers money in one currency from a party in country A to a party in country B. The payments platform operator will need to have established correspondent banking relationships in both countries, A and B. In other words, the correspondent banks will receive fees as a result of the transaction. In the event that the currency in country A is different to the currency in country B, the banks should also receive fees for managing the FOREX exchange process involved.

And if the payments platform operator is clearly and effectively handling all the Know Your Client (KYC) requirements, any bank can transact with that operator with the security that all parties to a transaction have been properly identified. Over time, it is becoming easier for payments platform operators to deal with KYC issues because of continual technical advancements and improvements such in facial recognition, and other biometric technologies. From the point of view of regulators and law enforcement agencies, the rise of the payments platforms makes it easier, not harder, to keep track of money that is moving through the financial system – and, not least, because of the reduced usage of physical notes and coin.

Payments platforms are probably better thought of as counterparts to the banks rather than as commercial rivals.

More "wearables" means easier (and more frequent) payments

Biometrics is not the only area where technology and innovation is having an added impact on payments. For years there has been a general tendency for payments to be possible through computers that are smaller and more portable than previous generations. Transactions involving cash withdrawn from an ATM gave way to internet banking via desktop computers. Desktop computers yielded to laptops, which were followed by tablets and smart phones. Payments platforms have long been agnostic in relation to the hardware through which they are accessed.

And they will need to remain so. The rise of wearable technology means that consumers are able – and expect to be able – to conduct transactions through smart watches, bracelets, necklaces and other devices that they keep with them at all times and all places. Biometric temporary tattoos appear to be the 'next thing' in wearable technology.

In short, several forces are moving the world of payments towards a point where all consumers will be able to achieve instant payment execution and therefore, instant gratification. That is the point in which a consumer can, instantaneously, make a payment in any currency to any person or business, no matter where they might be in the world. Meanwhile, he/she will come to expect that the payment (or, indeed the receipt) will be handled through whichever device he/she prefers.

OlePay is a Global Payment Pooling Platform which offers merchants in 281 countries the privacy and security of a closed network. Merchants benefit from instant receipt of payments from clients/buyers around the world; instant currency exchange, and lower processing costs. Consumers also benefit from security, privacy and payment device flexibility. They may make payments from their computer, tablet, smart phone, classic (vintage) phone, or even wrist band or necklace. They earn loyalty and reward points from individual merchants that can be used to purchase merchandise or redeemed for respective currency; System Points.

In short, OlePay combines a stored payment value account which includes all the payment processing features for both global and local merchants in tandem with meaningful marketing and branding value. OlePay is a part of the WorldPayU network and supports many different payment, gift and loyalty systems.

SOFTWARE ASSET MANAGEMENT (SAM)

THREE REASONS WHY IT SHOULD BE ON THE DIGITAL AGENDA FOR FINANCIAL ORGANIZATIONS

Established retail banks face greater competition than ever before from digital challengers. Consumers crave the ease and flexibility of slick banking applications, with digital-natives like Monzo, Starling Bank and Revolut having built their business around this seamless customer experience. To accelerate innovation and catch-up with these competitors, digital transformation is at the top of the agenda for financial services firms. Big players like Lloyd's are earmarking billions for digitisation projects, and a recent IDC report predicted global IT spend in financial services will reach US$500 billion by 2021.

Despite 70 percent of this spend set to be on third-party hardware, software and IT services, the practice of software asset management (SAM) is often neglected by financial organisations – even though it has a critical role to play in successful transformation, and a significant impact on a businesses' bottom line. So, here are the three reasons why SAM needs to be top of the agenda for financial services firms to ensure successful digital transformation.

1.Transforming legacy systems may leave firms non-compliant

Cloud computing is a key part of the digital transformation process, with an average financial services company using more than 1,000 cloud services. While moving to the cloud increases agility, flexibility and scalability, it also affects software licensing terms and agreements. This is because the majority of common licensing terms were not written for the cloud, but for when the vast majority of deployments were on-premises. For example, some agreements prohibit the use of a program in a third-party or public cloud environment which would render an organisation non-compliant and require the repurchase of licenses at significant extra cost or result in a large fine.

Uncertainty over licensing position can be dangerous for financial organisations to be in, especially considering the ever-present threat of a software vendor audit. The best SAM strategy to mitigate this risk will include an overarching management 'layer' that can give deep visibility into the current licensing estate. This visibility is essential in helping IT managers identify what software is in place, its licensing position, and whether the portfolio will stand up in the face of an audit.

2.Customized software adds complexity

Upgrading complex legacy applications is another key aspect of digital transformation. However, many of the applications used by financial services firms were not only created decades ago, but also and were custom-designed for specific functions. To transform this software, financial firms can opt to rearchitect them for the cloud, replace them with a SaaS product, or leave them be. None of which are without difficulty: migrating an application to the cloud may alter performance and stability; replacing an application with a SaaS product may not fit a bank's needs in quite the same way; leaving an application on-premise holds back digitization.

Migrating to the cloud and choosing a SaaS alternative are the two of the most popular options, however, once again, either choice alters an application's licensing position. For instance, if an application built in-house is re-architected to move to the cloud – where it was previously 'sitting' on a single owned server, it may now be in a dynamic environment made up of virtual machines across multiple locations, all of which have licensing considerations. Financial organisations need to consider SAM when it comes to application modernisation as without it, the resulting cost or compliance issues can be crippling.

3.Non-compliance is just the tip of the iceberg

Beyond receiving a non-compliance fine from a vendor, the consequences of poor SAM can be even greater due to strict industry rules – especially when it comes to mergers and acquisitions (M&A). Financial services is a highly regulated industry where M&As are common; any M&A will trigger a visit from auditors carrying out due-diligence, which includes a review of the software estate. During this stage, auditors scrutinise the portfolio of companies looking to merge or be acquired, particularly reviewing their licensing position and potential exposure.

A non-compliant company or one with a licensing deficit can be prohibited from merging or being acquired, as it would carry too much of a risk or cost implication. Good SAM practice gives financial organisations confidence that they have the necessary licenses and that loopholes are closed, meaning they don't have to worry about software stopping M&A activity in its tracks.

Stay ahead of the game

The banking industry is one of those most in need of digital transformation, with Gartner recently predicting that by 2030, 80 percent of heritage financial services firms will go out of business or exist formally but not compete effectively. While SAM might not be the 'sexiest' aspect of digital transformation, financial organisations cannot afford to treat software licensing as an afterthought. Instead, they must treat software as an important business asset – seeing it as a strategic priority and a key consideration in their digitisation strategy.

About Tony Spruyt:

Tony Spruyt is UK SAM Service Manager at COMPAREX, an IT, cloud, and security services provider and software license management company. With over 25 years' experience, Tony uses his expertise in SAM to help organisations of all sizes get the most from their software assets and meet digital transformation goals.

ON THE MONEY: FINANCE MANAGEMENT APPS FOR BANKING'S NEW GENERATION

Getting better at money management is among the top five New Year's resolutions made each year, with 32% of us vowing to save more and spend less. It's also one of the most commonly failed ambitions.

Many adults struggle with financial literacy– and not just at New Year. A study by Cambridge University and UCL last year found that a high proportion of UK adults have difficulty with basic financial management. A separate study found two-thirds of millennials had never been taught how to budget, and struggle to work out which financial products suit their needs.

It's not just those with low financial literacy who want help managing their money. The new generation of banking customers is accustomed to having data at their fingertips. Before making decisions about everything from what to eat to where to go on holiday, the mobile information generation expects to be able to consult relevant data, get recommendations and compare alternatives. Why should financial decisions be any different?

There's a definite market demand for consumer banking solutions to help people gain better control over spending and saving, but the traditional banking sector has been slow to respond. However, the advent of open banking, allowing customers to share their financial data with third parties, has prompted new market entrants offering money management apps that put customers in control. This competitive threat has given traditional banks the impetus to develop their own solutions, and they have little time to lose.

Breaking up with High Street banks – today's customers are fickle with their finances

It used to be said that you were more likely to get divorced than to break up with your bank. Bank account switching has historically been low in the UK with the big four High Street banks enjoying strong brand loyalty. They can't afford to be complacent, though, as this isn't the case for younger customers. 82% of millennials are open to switching banks, and just over half of them say they would switch to a different bank if it offered a better mobile app or other superior digital facilities.

Money management tools are high on the list of factors influencing the choice of bank for younger customers. Research by Business Insider found that features such as being able to set spending limits, see all their accounts through a single interface and even being able to compare their spending habits with others are important to customers when choosing who to bank with.

The younger generation is typically far more open about its spending habits and prepared to share valuable data if doing so offers tangible benefits. These might include an app that automatically transfers money from one account to another to prevent it going overdrawn, that automatically sweeps any extra cash into a savings account or provides alerts when better deals on financial products become available. Automation that delivers the best customer outcome without them having to make any effort is a crucial feature across many money management tools.

As the market changes, both established and challenger banks must create and roll out these kinds of products faster than ever before to compete for increasingly 'switchy' customers, and money management tools are a key battleground for differentiation. This demands a swifter, more iterative approach to highly customer-centric product development. Being digital-first is no longer an option for banks, it's a necessity.

Digital-first demands a different development approach

Of course, just like New Year's resolutions, saying you want to take a digital-first approach and actually achieving it are two different things. If you're a traditional bank, you have the challenge of integrating with legacy systems, and even relative newcomers to the industry need to have the right development platforms and

Garry Larner,
Regional Director UK FSI, OutSystem

approach to keep pace with a sector that's becoming increasingly dynamic.

A company that anticipated the changing shape of customers' money management needs earlier than most is thinkmoney. Designed to take the stress out of budgeting, their current account holds money needed for regular bills separately and tells customers exactly how much they have available to spend. This helps ensure that bills are paid on time, and gives users 24/7 visibility of their money situation, leading to improved credit scores and total peace of mind.

The thinkmoney account has proved very popular, but the company faced a conundrum. Positioned in between traditional banks and recent market entrants, thinkmoney has an opportunity to build on the advantages of both traditional brand heritage and recent-entrant agility, but it needed to innovate faster to consolidate its position, take advantage of the opportunities of open banking, and meet its customers' demand for fast banking services.

To solve this issue thinkmoney has entered a partnership with OutSystems to create a digital factory enabling it to transform into a fully digital-first organisation. Using low-code rapid application development thinkmoney's digital factory brings together business staff and developers to deliver features such as biometric authentication, a streamlined account opening process that onboards new customers in minutes, and integration with the wider financial ecosystem. Across all these initiatives, consistently providing an exceptional customer experience is the critical consideration, which is faster and easier to achieve thanks to the capabilities of the OutSystems low-code platform, which delivers a six-fold productivity increase compared to traditional coding. By operationalising innovation in this way, thinkmoney has put a sound foundation in place to ensure it stays competitive as the industry develops.

Customer experience is a top priority for 2019

Faster application delivery means more scope for innovation as new features can be easily tested and rolled out, ensuring continuous improvement of customer experience. Customer-centricity is a major focus for banks in 2019, and as the banking sector wakes up to the competitive benefits of helping customers manage their money better, the ability to quickly develop and bring to market new products that integrate seamlessly with legacy systems and the wider banking ecosystem will become critical.

Let's hope the end result will be more of us managing to achieve those New Year money-saving resolutions.

CAIXABANK: TECHNOLOGICAL LEADERSHIP AND INNOVATIVE APPROACH

An Interview with Jordi Nicolau is the Executive Director of the Global Customer Experience unit at CaixaBank.

CaixaBank is the leading retail bank in Spain. This time CaixaBank's Executive Director of the Global Customer Experience Unit, Jordi Nicolau sheds the light on the recent implementation of the biometrics technology, its challenges, social responsibility, and future directions.

Financial IT: Recent announcements about the implementation of authentication technology for ATMs has, once again, demonstrated CaixaBank's technological leadership and innovative approach. What are the key issues the facial recognition technology is meant to solve?

Jordi Nicolau: At CaixaBank, Spain's leading retail bank, we operate the largest network of self-service cash machines in the Spanish financial system and the second largest in Europe, with over 9,000 ATMs. This network is an important part of CaixaBank's strategy of harnessing technology to improve customer service.

CaixaBank has developed projects that have marked technological milestones in the sector, such as the first commercial implementation of contactless payments and mobile payments in Europe, and the creation of the first contactless ATMs in the world. We are now glad to be the first bank to use facial recognition to withdraw money from ATMs without the need for a PIN number.

With over 6 billion operations annually, and over 3 million Euros withdrawn every hour from CaixaBank ATMs, security and agility are key: this incorporation of biometric technology at our ATMs offers multiple benefits in these two areas, as well as setting us apart from other competitors.

Improved security also brings us closer to two other main objectives of improving the user experience and customer journey, and creating a closer proximity to our clients. So, the facial recognition technology not only streamlines the customer identification process and removes the need to memorise multiple passwords; but also, by offering state-of-the-art technology, the ATM becomes more than just a dispensing machine. Rather, it is a channel to bring us closer to our customers through improved user experience and efficiency.

Financial IT: Before implementing the technology, CaixaBank undertook extensive research. Was it a study to determine demand among real and potential customers for the technology or was an attempt to find out more about customers' preferences with regards to the biometrics know-how (e.g. the features and functions that they would like to see)?

Jordi Nicolau: It was more the latter than the former. Indeed, the need to remember a PIN at ATMs was one of the improvement points that customers regularly mentioned when asked about the main issues with digital banking. Having evaluated various options before finally opting for biometric technology as the most convenient alternative, before its implementation in the first ATMs, CaixaBank conducted a customer study to determine the degree of acceptance of identification by facial recognition. We found 70% of respondents saying that they would be ready to use it as an alternative to their PIN.

Among the other benefits mentioned in the study, 66% of respondents highlighted the sense of security, 19% mentioned convenience and 15% said speed of transactions, all of which are significantly improved through facial recognition technology.

Financial IT: What challenges did CaixaBank face while integrating the biometrics technology into the existing system?

Jordi Nicolau: The technical complexity is what made the integration of biometrics into our existing systems most challenging, and is it crucial for our team to have a deep understanding of the technological elements of biometric systems, specifically within the financial sector.

For this reason, attracting the right talent was our main focus. We cannot deliver to our customers if we don't have the best people and partners working with us. In this sense, for this particular project, not only did we set up a specific internal team, but we also worked directly with big vendors in technology and biometrics to ensure the best possible solution for our customers.

CaixaBank already had one of the most advanced ATM networks in the financial sector, developed in collaboration with Fujitsu, which for many years have incorporated a camera to increase customer security. It is this camera that now enables the facial recognition to be introduced in a very easy way and with a reduced investment. The facial recognition system was developed in alliance with FacePhi, a leading biometrics company, who work with over 30 financial entities on both a national and international level, so not only do they have the technological capacity, but they also have the knowledge and experience of implementing it within a financial environment.

Financial IT: In the last press release, there was mentioned neX, new organizational structure recently created in CaixaBank. Could you please tell us more about it (and, specifically its role and purpose)?

Jordi Nicolau: One of CaixaBank's five strategic priorities, as part of our 2019-2021 strategic plan, is to foster a people-centric, agile and collaborative culture, in line with our mission to continually contribute to the financial wellbeing of our customers. This has led us to completely rethink the way we work together to provide the best services to our customers, and to the launch of neX, CaixaBank's new philosophy towards working with our customers. Its main focus is on improving global customer experience, by taking retail banking from a divisional organization to a more unified, customer-centric unit. The reorganization of retail banking will be rolled out across all departments with the aim of putting into focus the relation with the retail client, and in turn speeding up the digital transformation of CaixaBank, reinforcing our added value proposition.

Financial IT: It is obvious that CaixaBank is undergoing rapid digital transformation? How far CaixaBank will go digitally?

Jordi Nicolau: Accelerating digital transformation is another pillar of CaixaBank's Strategic Plan 2019-2021. In today's fast-changing digital world, it is hard to say exactly how far CaixaBank, or indeed banking in general, will go in terms of digitalization. In fact, CaixaBank has the largest digital customer base in Spain with over 6 million digital customers, of which 5.2 million are also mobile banking customers. What's more, over 99% of documentation processing associated with managing CaixaBank products is now digitalized, so we have gone almost as far as we can in this area.

Now, one of the key areas we are focused on is artificial intelligence, or as it's often called, cognitive computing. We designed our cognitive architecture based on the main vendors of solutions like IBM's Watson. As part of our strategic mission to offer the best customer experience, we are trying to use cognitive computing in three main areas. Firstly, to boost productivity of our branch employees; secondly, to increase efficiency of our back office and call centres; and thirdly, to deliver a more streamlined and efficient experience to our customers.

Having said this, we understand the importance of maintaining a "personal touch" in the digital customer experience. Our clients tend to score us very highly when they have their personal reference point within the bank, even though they may be fundamentally digital and behave digitally, they would always want to also have a touch point that is physical. This is why CaixaBank's wide network of physical branches and stores, and therefore also ATMs, are a crucial part of our digital transformation strategy.

Financial IT: CaixaBank positions itself and acts as a socially responsible financial organization. Having an expertise, financial resources, and technology at hand what social value do you bring to the society?

Jordi Nicolau: CaixaBank wants to be a benchmark for responsible banking and social commitment. All of our expertise, financial strength and focus on innovation and technology work together to add more value to our clients, shareholders and society in general.

CaixaBank works to champion economic activity and business productivity, contributing to the generation of employment and financial inclusion. To this end, our financial strength is key to enabling us to safeguard jobs, acquire products and services from suppliers, compensate shareholders and thus help the community work pursued by the 'la Caixa' Banking Foundation, the main shareholder of CaixaBank, and its welfare projects (with a budget of €520M.).

Moreover, CaixaBank's 100% subsidiary MicroBank, the largest social bank specialising in microfinance in Europe, serves segments of the population whose financial needs are not catered for sufficiently. In 2018, MicroBank celebrated its 10th anniversary. Over the last decade it has provided more than €4billion in microfinance and, according to a study by Esade, helped create more than 181,000 jobs.

Financial IT: What other innovative technologies is CaixaBank planning to implement in the near future to improve security and agility for smooth customer service?

Jordi Nicolau: CaixaBank now has the facial recognition verification system in place in four Store branches in Barcelona, with a total of 20 terminals where customers will be able to withdraw money without having to use their PIN. The company plans to progressively expand facial recognition across its Store offices from the second half of 2019, with the aim of making the process of withdrawing money much more agile and efficient.

As mentioned above, artificial intelligence, or cognitive computing, is also a key priority for CaixaBank, as well as the use of robotics to improve automation processes and further smoothen out customer service.

CaixaBank

Fernando D. Morris

THE SPATIAL EFFECT GENERATOR

A new and clean solution for the world's energy problems...

To date, clean/alternative energy sources such as wind power and solar power have been widely accepted. However, in terms of cost and 24/7 reliability, they have yet to reach a point where they are truly competitive with coal or oil – the dominant sources of energy for the last 100 years or so.

Enter the Spatial Effect Generator...

Meanwhile, there is growing awareness of the potential of the Searl or Spatial Effect Generator (SEG). This appears to be a world class solution to the world's energy problems. It can deliver what is needed without compromising the environment and without the cost of fossil fuel. It can do so more economically than a conventional generator of the same power rating.

The SEG is a revolutionary open energy system. It is designed to work in accordance with the laws of thermodynamics by a process of energy conversion at the quantum level.

The inventor of the SEG system, the late Professor John R.R. Searl, and Fernando D. Morris have actively worked together the last decade at SEG Magnetics, Inc. (SEGM).

With the passing of Prof. John R.R. Searl in December 2018 the continued development is driven by Fernando D. Morris. Mr. Morris, the CEO of SEGM, is the foremost authority on the SEG and has refined the concept, designs and theories of Prof. Searl towards a workable electrical generator for commercial energy markets.

The SEG is a revolutionary energy conversion system which takes advantage of the electron's intrinsic ability to absorption and emits energy with uniquely patterned magnetic fields within permanent magnetic materials. SEGM technology in magnetic field control, will first be readied for manufacturing of the 15kW version of the SEG. The electrical forces are generated by proprietary magnetically programming of one of four layered materials. The materials include: a rare earth element, a dielectric element, a permanent magnetic element and OFHC copper. This produces a new type of magnetic component. SEG works directly within the known laws of thermodynamics by process of energy conversion at the quantum level of its constituent atoms.

SEG Magnetics, Inc. (SEGM) Labs will specialize in magnetically programming the SEG magnetic layer. That trade secret is kept deep in the SEGM vaults. The SEGM R&D project has begun developing the 15kW versions of the SEG. SEGM is also looking at marketing opportunities for standalone or off-the-grid electrical generators. The 15kW SEG will be the initial commercial product. This is a modest sized production plant plan, but it will be a model to showcase for future mass production plants of far larger capacity.

Power for off-the-grid communities or dedicated industrial equipment will most likely be the first working application for the user and proof of value examples on a large scale. The savings in power consumption costs over landline delivered electricity is estimated to be 30% in any case.

The classic SEG configuration consists of three set of rings and rollers as depicted: the smallest size unit is the 3kW version. However, the focus of the R&D project has been the development of the innermost set of rings/rollers, with its peak output of 3kW. The unit can be scaled up in the future in size and output power. The 3kW innermost ring is a part of the classic 15kW version – and proves the efficiency of the SEG.

The 15-kilowatt SEG at a glance:

- The SEG Stator Ring is made of four material layers and fixed to the base.
- 12 Rollers are free to orbit around the Stator Ring. Each Roller consist of eight segments, and each segment consists of four materials layers same as the Stator Ring.
- There are 12 electromagnets to match the number of Rollers. These are designed to extract electrical power by magnetic induction from the moving Rollers.
- There is a conventional Power Inverter to convert the rectified DC power of the electromagnets into standard levels of AC voltage, current, and frequency for domestic and commercial applications.
- Built into the SEG base or housing, there is a basic control and monitoring display. This has remote monitoring capabilities via the internet or control center.

The SEG Electrons service allows subscribers to lock in their electricity costs for five years, delivering predictable costs and significant savings greater than those available from any alternative.

SEG is deployed to the customer site to produce clean, reliable, affordable power on a 24/7/365 basis. SEGM manages and maintains the systems: the user only pays for the electricity used.

Benefits of SEG to customers

- Save money on electricity
- Lower energy costs immediately
- Maintain predictable energy costs over a five-year period
- Reduces carbon footprint, with no CO2 emissions.
- Noiseless power generation
- Reduces energy supplies risk
- Simply replaces the utility expense with the SEG Electrons service charge
- No capital risk – electricity, not equipment, is all that is paid for
- No technology risk – consumed energy is all that is paid for
- Uninterruptible power option for critical load period.
- Remote monitoring with blockchain technology
- SEGM provides for all service and maintenance requirements.

SEG Magnetics, Inc. *is the leader in SEG Research and Development. Fernando D. Morris is the company's CEO and is the foremost expert on the SEG technology. SEGM is based in San Diego County, California, with a mission to make clean, reliable energy affordable for everyone in the world.*

Financial IT
Innovations in FinTech

Financial Technology Buyers' Guide

Spring 2019 • Special Money20/20 Asia Edition

Accuity offers a suite of innovative solutions for compliance and payments professionals, from comprehensive data and software that manage risk and compliance, to flexible tools that optimize payments pathways. With deep expertise and industry-leading data-enabled solutions from the Fircosoft, Bankers Almanac and NRS brands, our portfolio delivers protection for individual and organizational reputations.

COMPANY PROFILE	
Company type	Public Company
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	over 1000
Inception	1836
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Sales Department
Job Title	Sales and Support
Contact address	110 High Holborn, London,WC1V 6EU
Telephone number	+44 207 653 3800
Email Address	sales@accuity.com
Homepage address	www. accuity.com

Allevo provides software solutions that help financial institutions of all sizes reduce TCO and achieve end-to-end interoperability across the financial supply chain – by using FinTP, a complete open source application that processes transactions, automates flows and offers compliance to regulatory and industry standards. The Allevo guaranteed distribution of FinTP is aimed to grow competitiveness and offer operational risk containment, making such systems affordable to SMEs as well. FinTP and all ancillary documentation is distributed freely and openly through the FINkers United community and it provides collaboration ground for rapid development and integration of new technologies, such as crypto currencies, biometric security, data analysis algorithms.

COMPANY PROFILE	
Company type	Privately Held
Annual turnover	1,44 mil. Euro (2015)
Number of Customers Total	Undisclosed
Number of Employees	48+
Inception	1998
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Alina Enache
Job Title	Sales Manager
Contact address	031281 Bucharest 3, 23C, Calea Vitan, Floor 3
Telephone number	(+40) 21 255 45 77
Email Address	sales@allevo.ro
Homepage address	www.allevo.ro

AppPello is a leading software solution provider specialised in front-to-back office banking solutions, covering Credit Risk Management, Cash Optimization, Trade Finance and other related areas. ApPello is proud to provide a fully modular and flexible approach that can be easily adjusted to the always changing business and regulatory environment of financial institutions. The solid growth of ApPello over the past 15 years proves our strategy driven by the attention to our customers, our focus on the best technologies and practices, and the will for innovation

COMPANY PROFILE	
Company type	Private
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	51-200
Inception	1998
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Erika Moczok
Job Title	Marketing Manager
Contact address	13-14 Madách Imre str Budapest, H-1075 Hungary
Telephone number	+36 1 474 0915
Email Address	erika.moczok@appello.eu
Homepage address	http://www.appello.eu/

Aqubix is an IT consultancy and experienced solution provider and have earned a reputation for offering a flexible approach with years of experience in business analysis and technical architecture. Aqubix aims to exceed the expectations of their clients, while maintaining competitive pricing.
Head quartered in Malta and with offices in Spain and UK. Aqubix offers modular and easy to use solutions and have been entrusted with projects for some of the largest companies, both locally and overseas

COMPANY PROFILE	
Company type	Private
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	11-50
Inception	2008
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Nickii Mallia
Job Title	Marketing & Administration Coordinator
Contact address	Aqubix, School Street, Naxxar NXR 2560, Malta
Telephone number	+356 2010 2060
Email Address	nmallia@aqubix.com
Homepage address	http://www.aqubix.com/

Compass Plus provides proven software and services for financial institutions, including retail banks and payment processors across the globe that operate in complex and rapidly changing business and technology environments. Compass Plus builds and quickly implements comprehensive and integrated payment technologies that allow customers to increase revenue and profits, and improve their competitive position by implementing flexible systems that meet market demands. With hundreds of successful projects spanning card, account and merchant management, card personalisation, mobile and electronic commerce implemented in record breaking time, Compass Plus ensures its customers make the most of their technology investments.

COMPANY PROFILE	
Company type	Limited Partnership
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	Undisclosed
Inception	1989
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Bethan Cowper
Job Title	Head of Marketing and PR
Contact address	9 The Triangle, Enterprise Way, NG2 Business Park, Nottingham, NG2 1AE, UK
Telephone number	44 (0) 115 753 0120 44 (0) 115 986 4140
Email Address	b.cowper@compassplus.com
Homepage address	www.compassplus.com

eVision is a leading software solution provider focused on assisting clients with their financial transactions and cash management operations. Since 2000 eVision has been helping their clients improve their operational processes and reduce costs. With the growing demand for financial transaction control and compliance, eVision has built and partnered with world-class software solution providers to ensure financial transactions are operating in a straight through processing mode. Furthermore, eVision provides a full range of support and implementation services worldwide, allowing clients to achieve the maximum return on their investment. We currently operate in Morocco, Algeria, Tunisia, Nigeria, and Egypt.

COMPANY PROFILE	
Company type	Private Company
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	22
Inception	2000
Geographical coverage	MENA

COMPANY CONTACT DETAILS	
Contact	Saad Essam
Job Title	Technical Account Manager
Contact address	Katameya Heights, Business Center, New Cairo, Egypt
Telephone number	+201101414114
Email Address	saad.essam@evision.ws
Homepage address	www.evision.ws

Fenergo is the No. 1 provider of Client Lifecycle Management (CLM) software solutions for financial institutions, counting 26 of the top 50 financial institutions in the world as clients. Its award-winning CLM suite transforms how sell-side banks and buy-side firms manage clients – from initial onboarding to KYC/AML and regulatory compliance, to client data management and ongoing lifecycle KYC reviews and refreshes. Fenergo CLM empowers financial institutions to deliver a faster, more efficient and compliant client experience and achieve a single client view across channels, products, business lines and jurisdictions.

COMPANY PROFILE	
Company type	Private
Annual turnover	€58m
Number of Customers Total	67
Number of Employees	650+
Inception	2009
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Greg Watson
Job Title	Global Head of Sales
Contact address	8th Floor, 125 Old Broad Street, London, EC2N 1AR
Telephone number	+44 203 481 1246
Email Address	greg@fenergo.com
Homepage address	www.fenergo.com

Finastra unlocks the potential of people and businesses by creating a platform for open innovation in the world of financial services. Formed in 2017 by the combination of Misys and D+H, we provide the broadest portfolio of financial services software in the world today – spanning retail banking, transaction banking, lending, and treasury and capital markets. Our solutions enable customers to deploy mission critical technology on premises or in the cloud. Our scale and geographical reach means that we can serve customers effectively, regardless of their size or geographic location – from global financial institutions, to community banks and credit unions. 90 of the world's top 100 banks use Finastra technology.

COMPANY PROFILE	
Company type	Private
Annual turnover	~$1.9 Billion
Number of Customers Total	9,000
Number of Employees	10,700
Inception	2017
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Ryan Keough
Job Title	Executive Vice President, International
Contact address	4 Kingdom Street, Paddington, W2 6BD, London, UK
Telephone number	+44 (0)20 3320 5000
Email Address	https://www.finastra.com/contact/sales
Homepage address	www.finastra.com

HCL

HCL Technologies is a next-generation global technology company that helps enterprises reimagine their businesses for the digital age. HCL's technology products, services, and engineering are built on four decades of innovation, with a world-renowned management philosophy, a strong culture of invention and risk-taking, and a relentless focus on customer relationships. They offer an integrated portfolio of products, solutions, services, and IP through their Mode 1-2-3 strategy, that has been built around digital, IoT, cloud, automation, cybersecurity, analytics, infrastructure management, and engineering services, among others.

COMPANY PROFILE	
Company type	Public
Annual turnover	US$8 billion
Number of Customers Total	Undisclosed
Number of Employees	12,400+
Inception	November 12, 1991
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Paresh Vankar
Job Title	Global Head Of Marketing – Financial Services
Contact address	61, Walsh Drive, Parsippany, New Jersey 07054, United States
Telephone number	+1609 216 6170
Email Address	pvankar@hcl.com
Homepage address	www.hcltech.com

NICE · ACTIMIZE

NICE Actimize is the largest and broadest provider of financial crime, risk and compliance solutions for regional and global financial institutions, as well as government regulators. Consistently ranked as number one in the space, NICE Actimize experts apply innovative technology to protect institutions and safeguard consumers and investors assets by identifying financial crime, preventing fraud and providing regulatory compliance. The company provides real-time, cross-channel fraud prevention, anti-money laundering detection, and trading surveillance solutions that address such concerns as payment fraud, cyber crime, sanctions monitoring, market abuse, customer due diligence and insider trading.

COMPANY PROFILE	
Company type	Public Company
Annual turnover	Undisclosed
Number of Customers Total	over 100
Number of Employees	over 500
Inception	1999
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Cindy Morgan-Olson
Job Title	Head of Global Public Relations/Analyst Relations
Contact address	1359 Broadway 5th Floor New York, NY 10018 USA
Telephone number	+212 851 8842
Email Address	cindy.morgan-olson@niceactimize.com
Homepage address	www.niceactimize.com

path solutions
Powering Islamic Financial Markets

Kuwait-based Path Solutions is a leading information technology solutions provider offering a broad, deep spectrum of Sharia-compliant, Riba-free and asset-backed integrated software solutions and services to the Islamic financial marketplace, covering the entire range of Islamic Banking, Retail and Corporate Banking, Investment and Financing, Treasury, Asset Management, Risk Management, and Regulatory Reporting in GCC and Global Capital Markets. Designed to meet the needs of modern Islamic banking, Path Solutions' turnkey solutions are based on an open, flexible architecture and an established deployment methodology.

COMPANY PROFILE	
Company type	Privately-owned company
Annual turnover	Undisclosed
Number of Customers Total	117
Number of Employees	500
Inception	1992
Geographical coverage	Middle East, GCC, Africa, Asia Pacific, South America & United Kingdom

COMPANY CONTACT DETAILS	
Contact	Mr. Reda Khoueiry
Job Title	Senior Marketing Officer
Contact address	P.O.Box 15-5195 Beirut, Mkalles Highway, Mkalles 2001 Bldg., 3rd Floor, Lebanon
Telephone number	Tel: +961 1 697444
Email	RKhoueiry@path-solutions.com
Homepage address	www.path-solutions.com

PAYBASE_®

Paybase is an end-to-end payments platform that has achieved industry recognition for revolutionising the world of finance. In an industry fraught with legacy technology and legacy thinking, businesses needing to facilitate payments between multiple parties often have to work around payments, restricting their ability to build innovative, user-friendly products.

Paybase changes this, offering businesses a truly flexible payment system that suits their needs and matches payment experience to user experience. This makes Paybase perfect for marketplaces, gig/sharing economy platforms and products with complex payment requirements.

COMPANY PROFILE	
Company type	Private Limited Company
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	20
Inception	2016
Geographical coverage	UK

COMPANY CONTACT DETAILS	
Contact	Russell West
Job Title	Head of Partnerships
Contact address	5-7 Tanner Street, London, SE1 3LE, UK
Telephone number	+447762192746
Email	russell@paybase.io
Homepage address	www.paybase.io

Pendo Systems was established to provide a new standard in Investment Accounting System Delivery. At Pendo Systems, our mission is to be a premier provider of software solutions to global financial institutions. We strive to not only help our clients achieve their business objectives and goals, but also to contribute to the success of individuals, businesses and communities throughout the world. We are driven to work with our clients in a collaborative partnership, and are guided by the fundamental values of professionalism, respect, teamwork and quality in delivering products and services to our clients.

COMPANY PROFILE	
Company type	Sole proprietorship
Annual turnover	over $5M
Number of Customers Total	20+ top tier banks worldwide
Number of Employees	over 10
Inception	2006
Geographical coverage	North America

COMPANY CONTACT DETAILS	
Contact	Pamela Pecs Cytron
Job Title	CEO – Pendo Systems, Inc.
Contact address	102 Clinton Avenue, Montclair, NJ 07042, USA
Telephone number	+973 727 7853
Email Address	pamela@pendosystems.com
Homepage address	www.pendosystems.com

Cross-border e-payment specialist PPRO removes the complexity of international e-commerce payments by acquiring, collecting and processing an extensive range of alternative payments methods under one contract, through one platform and one single integration. PPRO supports international payment methods across more than 100 countries. PPRO also issues Visa and Mastercard consumer prepaid cards, under its own brand name VIABUY, and enables B2B prepaid cards, under its CROSSCARD and FLEETMONEY brands, which can be issued both physically and as virtual cards or NFC devices. Founded in 2006 and headquartered in London, PPRO is an EU-certified financial institute with an e-money license issued by the British regulatory body FCA.

COMPANY PROFILE	
Company type	Privately Held
Annual turnover	Undisclosed
Number of Customers Total	Undisclosed
Number of Employees	200
Inception	2006
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Sales Department
Job Title	Sales Department
Contact address	20 Balderton Street, London W1K 6TL
Telephone number	+44 20 3002 9170
Email	sales@ppro.com
Homepage address	www.ppro.com

Trulioo offers the most robust and comprehensive global identity verification solution in the market to help you fully digitise and automate your customer onboarding process. Through a single integration, Trulioo can assist you with cross-border AML/KYC identity verification requirements by providing secure access to over 5 billion identities and 250 million business entities worldwide. Trulioo's mission is to create products that solve online identity verification challenges in a way that is accessible to both SME and large enterprise customers.

COMPANY PROFILE	
Company type	Private
Annual turnover	Undisclosed
Number of Customers Total	500-1000
Number of Employees	100
Inception	2011
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Kim Hong
Job Title	VP Marketing
Contact address	1200 – 1055 W Hastings St, Vancouver, BC V6E 2E9
Telephone number	1 877 292 7424
Email Address	sales@trulioo.com
Homepage address	www.trulioo.com

TIBCO fuels digital business by enabling better decisions and faster, smarter actions through the TIBCO Connected Intelligence Cloud. From APIs and systems to devices and people, we interconnect everything, capture data in real time wherever it is, and augment the intelligence of your business through analytical insights. Thousands of customers around the globe rely on us to build compelling experiences, energize operations, and propel innovation. Learn how TIBCO makes digital smarter at www.tibco.com.

COMPANY PROFILE	
Company type	Privately Held
Annual turnover	Undisclosed
Number of Customers Total	10,000+
Number of Employees	3,500+
Inception	1997
Geographical coverage	Global

COMPANY CONTACT DETAILS	
Contact	Alison Sharp
Job Title	Senior Marketing Manager
Contact address	110 Bishopsgate, London, EC2N 4AY
Telephone number	+44 203 817 8500
Email Address	asharp@tibco.com
Homepage address	www.tibco.com