banking technology

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TIPPING POINT
The Oracle-Google case will determine the future of open APIs

FINTECH M&A AMID COVID-19
Analysing investment activity in 2020

EMPOWERED, NOT PREFERRED
A discussion with Modularbank's Vilve Vene

Produced by
FINTECH FUTURES

IN THIS ISSUE

EDITOR'S NOTE

Sharon Kimathi
Editor, Banking Technology

It's hard to believe that it's already September. The sun is setting earlier, leaves are beginning to turn and fall, and the air is chilling. The changing landscape also ushers in the industry's conference season, and due to prevailing uncertainties, will taking place digitally.

This edition of *Banking Technology* magazine turns its spotlight on large technology companies and their latest mergers and acquisitions (M&A) activity. We also unpack the potential effects of an upcoming precedent-making Supreme Court case judgement between Oracle and Google.

Jay Wilson, investment manager at AlbionVC, assesses the impact of the coronavirus economic crisis on fintech M&A. He believes that strategic acquirers will likely have balance sheet issues of their own, ruling out cash funded acquisitions. He points to the volatility of capital markets leading to a decline in debt funding options, "so debt funded acquisitions [are] highly unlikely which incidentally also takes out your private equity buyers".

However, Wilson remains optimistic regarding the positive trajectory "relative to five months ago when the investment activity trajectory was very much down".

Elsewhere, Hannu Valtonen, chief product officer at Aiven, dissects the potential ramifications of the Oracle versus Google copyright US Supreme Court case.

The Supreme Court must determine if Google's use of Oracle's Java's application programming interface (API) to build the Google Android smartphone constitutes "fair use", or if Oracle can successfully argue that Google's move prevented its entrance into the smartphone market. Valtonen offers his insight on potential changes and challenges developers might face if Oracle wins.

Stay tuned for our digital supplements on FinovateFall and Sibos. From all of us at *Banking Technology* magazine, we hope you enjoy the coming of autumn and continue to stay safe.

FINTECH FEED

TWEET DECK Follow us @FinTech_Futures

Steve O'Hear
@sohear
PRs sliding into my Twitter DMs to tell me they've emailed me is really getting old. Omni-channel is not welcome in these parts!

Mona M. Vernon
@monavernon
I have a women in tech joke but you already explained it to me.

Mask Wearing Fintech Geek Dion Lisle
@dionlisle
Serious question for my Fintech/Bank peeps

Does anyone know of a Large US Retail Bank, that means top 10 with a board member that has Start-Up Experience?

Honestly, I don't see how they could since the average US Bank board member is likely over 65 years old.

> **Mask Wearing Fintech Geek Dion Lisle** @dionlisle · Jul 28
> Revolut is looking for a US Board Member in SF. They have two requirements that might make this a Unicorn Hunt (actual unicorn meaning a Non-Existent creature)
>
> Experience as a board member of a large US retail bank
> AND
> Start-up experience
>
> linkedin.com/jobs/search/?c...

Helen
@HelenAndI
Colleague: Helen your camera isn't on

Me: I know

Colleague: ...

Me: ...

Nina Mohanty
@ninamohanty
16% of this YC batch have a female founder. 6% have a Black founder. It's 2020 and the cohort was remote. If this doesn't change now, then when?

THE NUMBER GAMES

£270 million

Total losses of Monzo, Revolut and Starling Bank in 2019. Monzo's losses more than doubled to £113.8 million, while Revolut faced a loss of £104.7 million and Starling Bank's losses doubled to £52 million

17%

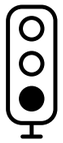
Fintech funding increased 17% quarter-on-quarter between April and the end of June

$55 billion

Square's latest valuation, which sits as high as some of America's largest banks

$5.3bn

The UK watchdog greenlights the $5.3 billion Visa-Plaid deal



10m

In the last 12 months, as many as ten million people have used a "buy now, pay later" service

$200bn

Ant Financial is targeting a valuation of more than $200 billion in its initial public offering (IPO)

$901.7 billion

The total value of global M&A deals announced in the first half of 2020 across all industries

To read more about any of these stories, visit *www.fintechfutures.com/type/news*

THEY SAID IT...

"Social justice will take a lot of time, but we can focus on economic justice and begin to help equalise wealth building"

Samir Goel, co-founder of Esusu

NEWS ROUND-UP

JP Morgan to launch digital lender in UK

The US banking giant aims to go live with signed up suppliers in the first quarter of 2021. These include Amazon Web Services (AWS) and 10x Future Technologies, the venture set up by former Barclays chief Antony Jenkins. JP Morgan is yet to officially confirm the project's existence, which was first unveiled by Sky News in February.

Google Pay to launch bank accounts in 2021 with flurry of partners

The US Big Tech has onboarded a range of domestic banking partners for its new service, including BankMobile, BBVA USA, BMO Harris, Citi and First Independence Bank. Google's partner banks will handle the financial side of its accounts, whilst the Big Tech provides the front-end, intuitive user experiences and financial insights. The banks will allow Google to keep banking customers' money in accounts insured by the Federal Deposit Insurance Corporation (FDIC) and National Credit Union Administration (NCUA).

Wirecard business partner reported dead in Philippines

Christopher Bauer, the owner of key Wirecard partner PayEasy Solutions, was reported dead in the Philippines. The 44-year-old German's company was responsible for one of Wirecard's biggest sources of profit. Bauer, who is also a former Wirecard executive, was being investigated since June alongside his wife Belinda following the collapse of the German fintech. The Philippines' Justice Secretary, Menardo Guevarra, says his office is trying to secure a certificate for the death of Bauer, recorded at the end of July on Manila's registry.

Citigroup first US bank to snag Chinese licence

Chinese regulators have granted Citigroup a fund licence, making it the first US bank to receive permission to operate custody services in the country. It arrives at a time when more firms are looking to tap into China's financial sector since the China Securities Regulatory Commission relaxed its rules on foreign banks and insurance.

UK leads the way in Islamic fintech ahead of Malaysia and UAE

The UK's fintech start-up scene has seen some significant traction from Islamic-friendly – as well as focused – firms. Qardus, Minted, Kestrl, Niyah, and Rizq have all launched in the UK in recent times. Kestrl says that young Muslims want effective digital banking solutions first, and care about its status as Shariah compliant second. According to IFN FinTech, the UK has 27 Islamic fintech start-ups, ahead of Malaysia's 19, followed by the UAE with 15, Indonesia with 13, and Saudi Arabia and the US with nine.

Oracle wins Flexcube deal in Germany

E-money institution Paymentworld picked up Flexcube as well as Oracle's Banking Digital Experience, Banking APIs and Banking Payments services. The Germany-based firm offers online IBAN accounts, an omni-channel payment gateway, and a white label e-wallet solution. Oracle revealed the deal in its update for Q1 of the 2021 financial year. The vendor claims to have signed licence deals worth $29.5 million with customers in 32 countries over the period.

TRENDING

Realignment

As the US government threatens to delist those that do not meet its accounting standards, the prospect of US-listed Chinese companies returning to their domestic stock markets increases as bilateral tensions elevate. Chinese companies have raised $5.23 billion in US initial public offerings (IPOs) – more than double the $2.46 billion for the same period last year, according to Refinitiv data. Lufax, an online wealth management firm, lodged a confidential application for a US listing, whilst Ant Financial, amongst others, opted for a Hong Kong and Shanghai listing. The chief representative of Nasdaq China, Chris Hao, told the Global Times he remains optimistic more Chinese companies will file for US IPOs in 2021, while seeking options on the A-share or Hong Kong markets in the middle term. Nevertheless, as the US may tighten its listing rules to restrict Chinese firms, Chinese capital markets are embracing companies returning to the mainland.

Challenger bank challenges

Starling Bank's losses doubled to £52 million in 2019 as the company hired hundreds of employees and focused on attracting new customers. But it's not the only challenger bank facing some tough challenges. Revolut's losses trebled in 2019 to £104.7 million, following a year of rapid growth which saw the UK challenger hire 1,628 more staff, as well as launch in the US and Singapore. Monzo's losses also more than doubled to £113.8 million. Nevertheless, challengers have made strides in revenues. Starling brought in revenues of £14.2 million, a steep increase from the previous year's revenues of £750,000. Revolut's was up to £162.7 million in 2019 from £58.2 million in 2018. Monzo's revenue increased to £56 million in 2019 from £13 million in 2018. These reported losses often boil down to staff costs, marketing spend and ultimately not having what these standard incumbent banks have – mortgage books.

M&A wrap

The first six months of 2020 registered a massive drop in global mergers and acquisitions (M&A) activity across all industries, according to White and Case law firm. The total value of deals announced in the first half of 2020 – both completed and pending – was $901.7 billion, 53% below the same period the year before, and the lowest half-yearly total since H1 2010. Deal volume fell 32% year-on-year, to 6,943 deals – the lowest half-yearly volume total since H1 2013.

Everybody's talking about BNPL

The "buy now, pay later" (BNPL) sector has thrived due to changing consumer spending habits amid the economic turbulence caused by COVID-19. Klarna launched in Australia and signed big brand deals. Sezzle recently raised $60 million and formed a partnership with Plaid. Splitit secured $71.5 million through a private placement and share purchase agreement to tap the US and UK market. Afterpay went public this year and acquired Spanish BNPL firm Pagantis, while Fly Now Pay Later landed £35 million in a Series A funding round. Most of these firms formed in Australia, as the country aims to become the global hub for BNPL companies: Zip, Sezzle, Splitit, and Openpay are all listed on the Australian Stock Exchange.

Fintech funding review

Fintech funding rebounded in the second quarter of 2020. Funding increased 17% quarter-over-quarter (QoQ) to $9.3 billion in Q2. However, venture capital-backed fintech deals declined from 452 in Q1 to 397 in Q2. This suggests a funding rebound caused by established fintechs' "mega-rounds" ($100 million+), which hit a new quarterly high of 28 as the largest companies in the space raised additional funding. N26 extended its $570 million Series D fundraise in May, Revolut closed a $500 million Series D funding round in February, while Starling Bank raised a total of $133 million from two fundraising rounds in February and May. And it's not just challenger banks as investment tech/stock trading app, Robinhood, secured $200 million in a Series G round and paytechs like Transferwise snapped up $319 million in a secondary share sale.

The social-savvy wave of entrepreneurs

By Ruby Hinchliffe, reporter, FinTech Futures

As more challengers arise to serve the world's small and medium-sized enterprises (SMEs), a social-savvy wave of entrepreneurs is continuing to swell. They look rather different to the SMEs the industry refers to as having gone underserved by incumbents for decades. And they will push traditional banks to pivot their offerings once again – though many will argue they're still a pivot or two behind.

Platforms like Google's YouTube, Beijing-based ByteDance's TikTok and Amazon's Twitch are attracting millions of content creators. In 2016, pre-TikTok boom, around 7.34 million people in the US made money on the following platforms: Twitch, Tumblr, Instagram and YouTube. In 2017, that figure jumped to 10.97 million, according to lobby group, Re:Create Coalition. And the industry is showing no signs of a slow-down. In fact, the coronavirus has seen app downloads for TikTok boom. In the first quarter of 2020, app downloads reached 315 million – the best quarter for any app, ever, according to ad agency, Wallaroo Media.

But these entrepreneurs are fickle. Whilst their content creating eye won't fade, the platforms they piggyback off can. Twitter-acquired Vine, the six-second video app, had 200 million users in 2015. But a year later, it was practically obsolete. As the platform melted away, the names which came out of it kept their flames alight. Vine stars Logan Paul, Christian Leave, Brent Rivera, and Lele Pons all still have flourishing, obscenely lucrative content creator careers today.

These apps hold huge acquisition pools just waiting to be tapped by financial services firms. So, just how much are these young entrepreneurs making? In 2019, YouTube made $15 billion in advertising revenue. A big portion of this – though the internet giant won't release the exact figure – goes to its creators. One of TikTok's most followed users, Charli D'Amelio, makes an eye-watering $48,000 for each of her posts. Imagine that multiplied by ten or so – that's just her monthly income.

This Gen Z segment of the SME sector should not be sniffed at. They make huge amounts of money with next to no operating costs – so they're ideal investments for banks and challengers. They're not just young people – older generations get millions of followers too.

We can also see that they stand the test of time, even if the platforms they use to push their content don't. The reality is that there will always be a new platform in the running. If the US President Donald Trump bans TikTok because of its Chinese heritage, you can bet your bottom dollar a new app will swoop in to tap this burgeoning market.

But what should a banking offering look like for these entrepreneurs? *FinTech Futures* has come across a few potential small-time contenders for the ring. ChannelMeter, a US-based social software firm, landed $4 million in June to get into banking. Its new service, Creator Cash, will offer the challenger basics, plus an earnings scheme based on content analytics. VibePay, a UK-based social payments app, launched its business offering this month. A payments rather than banking fintech, it helps entrepreneurs – whoever they bank with – get paid more easily through platforms like Depop. And if you're looking for a high-end offering, the investment banking space is seeing disruption as challengers like 220 try to tap the child stars earning more money than they know what to do with.

Whilst only 9% of US internet users used TikTok in 2019, teenage internet users formed more than 49% of that figure, according to Wallaroo Media. It's these teenagers, their habits and lifestyles, which will have a heavy hand in shaping the future of the financial services industry.

Time to sink or swim

The coronavirus pandemic has underlined the need for a digital revamp in the corporate banking space. By Alex Hamilton, deputy editor, FinTech Futures

Like almost all sectors in the financial services industry, the world of corporate banking has had to weather a substantial amount of change over the first half of 2020. While banks were arguably better prepared for a crisis than they were in 2008, a slew of different factors made dealing with the COVID-19 pandemic a different beast altogether.

The dynamic change forced companies across the globe to react in rapid time to localised and country-wide lockdowns. Employees could no longer be at their workstations, and client were no longer available on the same tried-and-true communication channels.

Not only have corporate banks had to deal with shifting hundreds and thousands of jobs to remote locations, they have had to deal with their client relationships moving almost entirely online.

While the world of retail banking has grappled and come to terms with the necessity of extensive online channels for customers, corporate banking has struggled to catch up. Yet now a quiet but very real transformation is happening in the back offices of commercial banks around the globe.

Thrust into a world that demands always-online availability and communication at the drop of the hat, many are finding that it is time to sink or swim. Surprisingly the banks that started out flailing in the water are finding it much easier to perform a backstroke than they thought.

According to an FT report, bankers at JP Morgan and Morgan Stanley discovered that the range of digital tools they had eschewed in favour of watercooler chat or manual processes like printing out documents had merit to them.

While the narrative has always been that banks who don't adapt to digital norms are in danger of being left behind, plenty of lender had shrugged their shoulders and adopted a "we'll do it later" approach. Now the urgency of digital adoption has arrived on their doorstep.

The ease of connection that initiatives like open banking provide has filtered into the consciousness of those at the top of the corporate banking ladder. According to a survey from Finastra, more than 86% of global banks plan to use APIs to open up their services over the next 12 months.

It's all very well that banks begin to think about technology change, spurred on by the necessities of a once-in-a-lifetime change, but what needs to be put in place to ensure that these changes stick around?

Does the digital retail banking revolution have staying power in the halls of its more traditional workhorse relative? Will the bosses at the top shirk away at the costs of revamping monolithic institutions which have done things a certain way for decades?

Client needs will surely show the way. Commercial clients are beginning to expect the same speed, flexibility and personalisation they receive from their bank as a consumer. As the client are forced to adapt to a changing digital world, they expect their banks to do so as well.

Corporate treasurers are expecting real-time data and payments, improved access to funding, and analytical predictions over managing risk, all available remotely, digitally, and without delay. Meeting those needs is central to the recovery for corporate banks as the world emerges into the "new normal."

FinTech Futures is producing an in-depth report into the corporate banking sector later in the year.

I'M JUST SAYING...

After divorce comes the engagement

By Dharmesh Mistry

In the June issue of *Banking Technology* I wrote about the need for banks to separate (divorce) customer lifecycle management from product lifecycle management.
In the next article (July/August 2020) I explained the need and focus of a digital banking platform was the customer lifecycle, here most people will see this as customer relationship management (CRM) and customer service delivered through channels. In the past the focus has been about interactions, but going forward it needs to be about engagement.

So, what is the difference between interaction and engagement? It seems like a simple question that deserves a unanimous agreement from anyone asked. Yet I often hear these terms used interchangeably or worse still, people focused on interaction with no plan for engagement because they understand the need. A dictionary definition of interaction is "Interaction: reciprocal action or influence, communication or direct involvement with someone or something".

This in the sense of customer channels is easy then, a customer asks for a balance and the response is their balance, or the customer asks to make a payment and they are presented with a screen to capture the details of the payment the customer wants. What is happening here is a mapping from a request to a response – easy, right?

Now look up engagement and you will get a wide array of definitions from "a betrothal" to "an appointment" or "an arrangement to do something". So really, I cannot blame people for not understanding the difference. What does it mean in the context of channel banking?

The first difference between interaction and engagement is that engagement is something that can be initiated by either side. For example, the customer has logged into the internet bank and the bank advises them that a large transaction has made an account go overdrawn. Hence an engagement is also something that is proactive, the customer didn't ask for it, but the prompt was given as it was deemed useful to highlight to the customer. Clearly the customer could have seen this for themselves when they go into the account. Had they done that then that would have been another interaction.

What if the customer interacts with the bank to order some foreign currency? Once ordered, the bank advises they have travel insurance should the customer be going abroad. This, too, is engagement, albeit the bank is making the customer aware of another product they have. What if instead of travel insurance the bank showed a message saying, "your payment has gone through, how about taking out one of our super low rate credit cards?". This is also proactive, right? No.

The next thing about engagement is that it must be timely and relevant. In the first example it was exactly that, in the second example there was no immediately obvious reason why the customer would need one or why they were asked then.

So, when the bank interacts with a customer they are simply responding to a question or need. But when a bank engages with a customer, they are going beyond the initial request to provide additional relevant information, a service, or they are proactively communicating something of benefit to the customer.

One of the big challenges with engagement is conflict of interest between different parts of the bank. For example, and this really happened to me, I went from a long holiday straight onto a long business trip. On my return after five weeks, I had two letters from my credit card company. One threatening me with action if I did not pay my bill and another extending my limit as I had spent so much. Clearly, I was both confused and annoyed, two different messages from the same company. Hence another key aspect about engagement is that it requires a deeper understanding of the customer such that any engagement is prioritised. Imagine how pleased I would have been if I had a single letter saying: "We noticed your transactions abroad and have seen you haven't paid your bill. We have increased your card limit and allowed an extra two weeks this month to pay your card bill."

As we have entered an era where customers are increasingly demanding online services, providing a mobile, internet or chatbot access to interact with the bank is not enough to differentiate banks from their competitors. Customer engagement that is prioritised, proactive, relevant and timely will separate the winners from the losers in the future and will be a key form of differentiation and competitive edge.

What I have covered here is just the basics of engagement, yet any bank that does not have an engagement strategy is already at least five years behind the leaders. I'm just saying that in the digital era, if you want to retain your existing customers, then acquire new customers and turn them both into loyal advocates. To do so, you really have to master engagement now.

Dharmesh Mistry has been in banking for 30 years and has been at the forefront of banking technology and innovation. From the very first internet and mobile banking apps to artificial intelligence (AI) and virtual reality (VR). He has been on both sides of the fence and he's not afraid to share his opinions.

The payments superhighway

Why everyone's talking about cloud-based platform architecture

Any chief technology officer (CTO), in any financial institution big or small will tell you that the challenges in payment processing are the same. After all, a payment is a payment and people want them to be fast, really fast.

Speeding up payment processing is one thing but being able to handle the complete, end to end payments journey from first customer interaction to processing, clearing, settlement and reconciliation in milliseconds is game changing.

The key is the payments architecture – what's going on under the hood. The back-end payment processing plant needed is a huge problem in a fast paced, 24/7 real-time environment.

The traditional agency bank model of batching payments and receiving transaction reporting in hours or days is no longer fit for purpose in the changed world. But it is still mainstream in many big banks – and that shiny new app just launched now has to wait because it is relying on the legacy technology to run it.

And, what about the cost of maintaining that legacy stack? Data centres, infrastructure and inhouse software are expensive to buy and maintain.

The need to scale and take advantage of new technology while controlling and reducing costs is imperative in the new "instant" world. People and businesses want to be paid instantly, they want to track their payments and get instant notifications.

UK and European banks and fintechs are now expediting their two or three-year digital transformation programmes into just 18 months, moving critical services to specialist cloud managed service providers.

WHY CLOUD-NATIVE ADOPTION IS THE NEW NORMAL

Transforming critical payments infrastructure from a fragmented, on-premise environment to a cloud-native, modular component-based model is how the payments industry is meeting the digital demands and growing payment volumes in the new world.

> "The investments must go beyond the new standard of shiny front-end customer applications and fundamentally drive structural change at the bank's digital core."

Driving efficiency and optimisation through tactical technology investments is firmly at the top of the to-do list of most banks. But these investments must go beyond the new standard of shiny front-end customer applications and fundamentally drive structural change at the bank's digital core.

Cloud-native technology enables banks to deliver services in an agile and efficient manner, cutting costs and meeting customer expectations. This kind of transformation journey is as much about cultural shift as it is about embracing new technology.

TRANSFORMATION STARTS AT THE CORE

Let's face it, patching over legacy technology is probably not going to be a long-term solution. Neither is joining and maintaining connectivity to national and regional clearing and settlement mechanisms (CSMs) on an individual basis, which is time consuming and difficult. Getting it wrong is not an option.

Unfortunately, as banks have grown organically and through acquisition, so has their reliance on custom applications and integrations to many payment schemes (three SEPA schemes, three UK schemes, Swift etc), often with multiple internal systems for many different brands under one roof.

Operating a bank with up to 80 individual integrations into one scheme across a network is what is known as payments spaghetti. Cloud technology simply removes this. Rationalising the payment processing into a single platform, through one integration to many schemes, on the same API and moving away from many messaging formats significantly simplifies your access to central payment infrastructure.

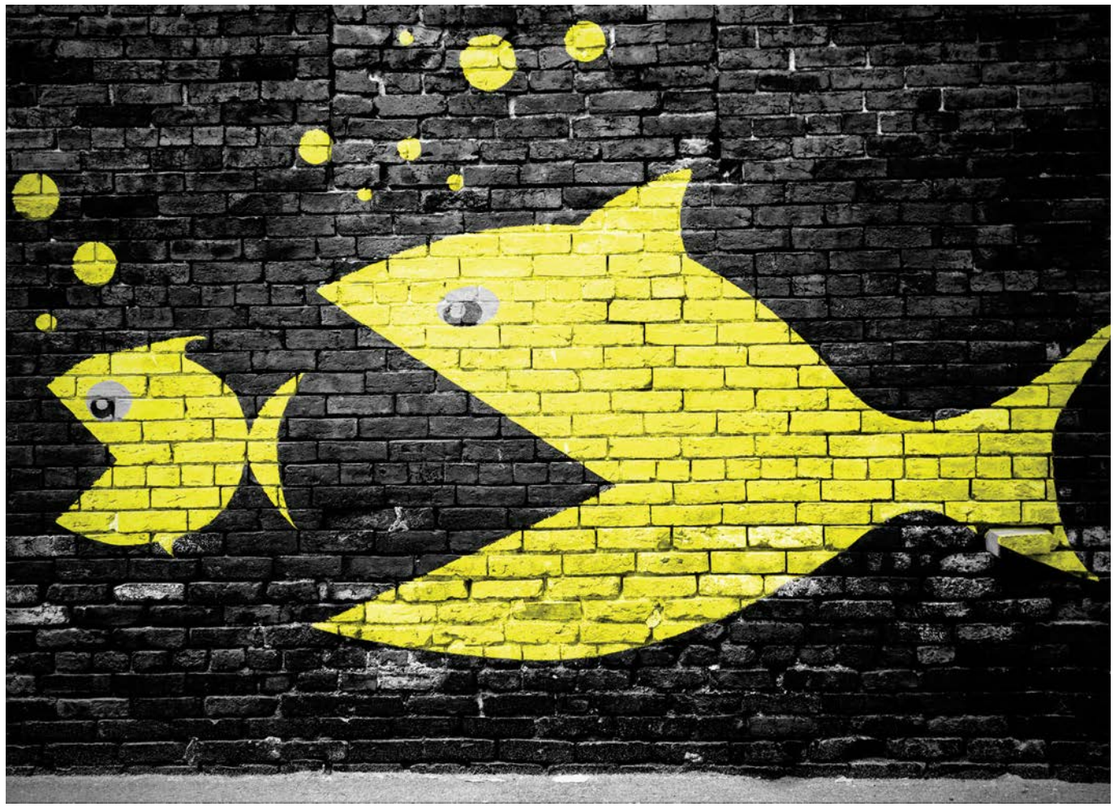
Working with a standard product and standard implementation methodology along with simple API-driven technologies allows the bank to simplify payments processing to create a solid foundation for deploying new products, improving operational processes and standardising data processing across the banks systems. It's low cost, low risk and highly scalable.

Focusing on areas that you specialise in and outsourcing those that you are not is key to winning the digital race. Finding the components that can be efficiently outsourced at speed and scale will free you to devote resources to servicing your customers better.

COMMENT

How the coronavirus has impacted M&A activity

By Jay Wilson, investment manager, AlbionVC



When COVID-19 forced us into lockdown I was asked for a comment on the outlook for funding for fintech and I could be forgiven for claiming my view at the time has been proven – that fintech funding or acquisition interest would all but stop for all but the highest quality opportunities.

I feel somewhat differently now and having lived through the COVID crisis for over five months, it is a good opportunity to reassess.

At the time I contended for any professional investor or those with a mandate to execute an inorganic growth strategy, writing an investment cheque or agreeing to a sales and purchase agreement (SPA) represents a good day in the office. So, it would not be for the want of trying that investment activity could slow down.

However, the practical realities of getting deals done is very different. At the highest level, getting to the point at which cash (or other securities) changes hands requires a four step process: i) engage with a company and build a relationship with the management team; ii) agree a three-to-five year business plan; iii) ascribe a value to said business plan; and iv) conduct a due diligence exercise and complete customary closing mechanics.

I had argued that as great as Zoom is, building the basis for a long-term relationship via video was challenging (call me old fashioned). Furthermore, while there are certainly some snazzy slides decks and whizzy financial models going around most executive teams right now, getting clarity and alignment on a medium-term business plan from both the demand and resource perspective was near on impossible. Then, gaining sufficient conviction to ascribe an appropriate value to that business plan which both buyer and seller are happy with – well good luck with that. As a result, the investment landscape would grind to a halt. And, if you evaluated the investment activity so far in 2020 this is the picture that has emerged.

Figures published in August 2020 by Innovate Finance, for the UK market, suggest fintech funding by value dropped by around 40% in H1 2020 vs. H1 2019. And the majority of that funding went to just five companies: Revolut, Checkout, Starling, Onfido, and Thought Machine – a flight to perceived quality.

FT Partners reported, on a global basis, that mergers and acquisitions (M&A) volume in Q2 2020 was the lowest quarterly volume since Q2 2013. However, extrapolating from these few early data points would, in my now revised view, be overly conservative and does not reflect the opportunities emerging across a number of fintech categories.

Reassessing why we are where we are, I now feel the aforementioned dynamic represents a momentary pause while the wider community took a very deep breath and watched if we would enter a downward spiral of doom toward a full-blown financial crisis.

To begin to think through the implications on the investment and M&A activity in the fintech space I have found it helpful to think about what the COVID crisis is and is not, and what fintech is and is not.

This provides insight into the temporal effects of the crisis overlaid on the underlying drivers of fintech. Not to trivialise the intricacies of the COVID crisis or the different speeds at which individual countries are responding but I have viewed the COVID crisis on a spectrum from health crisis on the far left, to economic crisis in the middle, and financial crisis on the far right. To add to that I see fintech as a spectrum from "traditional" financial services with a smattering of technology on one end, to enterprise technology selling to financial institutions on the other.

The further we progress from left to right on the COVID spectrum and the closer you sit on the "traditional end" of fintech the more challenging an environment one could face. On all dimensions: commercial, operational, and financial, challenges lie ahead. Strategic acquirers will likely have balance sheet issues of their own so cash funded acquisitions are out, the capital markets will de facto be shut, so debt funding acquisitions is highly unlikely which incidentally also takes out your private equity (PE) buyers (although historically PE buyers of fintech have been only around 10% by volume, according to FT Partners).

> "The market is pricing a more positive outlook for banks globally, with most banks' price-to-book now trading above even pre-COVID levels."
>
> **Jay Wilson, AlbionVC**

We could see stock transactions trying to square that circle, but this is unlikely to be viable in many cases. Similarly, the valuation correction is unlikely to attract anyone other than the most value orientated investor which will not do much to boost volumes. In the not so severe version of this scenario but when prevailing rates remain low, the continued compression of core banking profitability could lead to the search for alternative revenue lines (e.g. subscription or premium services). Acquiring to speed up the time it takes to "go-to-market" could be on the table.

If we arrive wholesale at the other end of the spectrum and escape relatively unscathed economically and you sell enterprise technology to financial services, you will likely be in for a near term bumper period. The very seductive narrative of "digital acceleration" is actually playing out, we have seen sales cycles shorten and there is much less browsing in the aisles – buyers mean business.

This type of growth agenda is likely to attract investment interest as funds look to deploy the oodles of dry powder on the books. Also, from an M&A perspective the "capability" add-on strategy will see renewed focus as incumbents and roll-ups look for upsell and cross sell opportunities to their existing customer bases.

In the middle, the grey area, is where many question marks remain. Businesses that have raised money at the top end of valuations, or those that favoured a "build it now and monetise it later" approach, or those business models directly exposed to consumer or small and medium-sized (SME) credit (as just one example) may very well find the investment and buyout audiences less receptive.

This last category in particular is a nice articulation of how legacy technology just can't handle a societal or economic shock – in this context lenders which rely of static data packets or thin credit files to assess credit worthiness just can't evaluate the impact of furlough or mortgage holidays – it simply doesn't work at scale. Many insurance verticals suffer a similar shortcoming. The contingent in contingent liability just became a guess! One way or another, investors have repriced their capital in this middle ground.

Overall though, the mood is lightening. The market is pricing a more positive outlook for banks globally, with most banks' price-to-book now trading above even pre-COVID levels (December 2019). Some North American banks have enjoyed 50% growth in this multiple while more than 20% growth over the same period for European banks has not been uncommon.

If market volatility is an indicator of M&A appetite (which it is) the indicators also suggest a more positive landscape. The Volatility Index (VIX) has settled down to a 25-35 range, which while elevated from a historic range around the mid-teens, is a welcome retreat from the 50-70 range during "peak" COVID. Reflecting this, investors are back out there reviewing business plans and evaluating assets again willing to do the work to deploy capital. Deals are moving through the funnel again, and transactions are being concluded.

In summary, relative to five months ago when the investment activity trajectory was very much down, it does now feel that directionally we are pointing up. As to the gradient of that trajectory or the pace with which we move in that direction, we will have to see.

Streamlining manual processes amid COVID-19

By Sharon Kimathi, editor, FinTech Futures

The efficiency of any operations department within financial services depends on workflow, especially when working remotely during the coronavirus crisis, and ultimately, efficiency is a key indicator of bottom-line profits.

To streamline work processes and improve workflow, a business must have an overall assessment of operations. Financial institutions must evaluate office paper use, including the usage, processing and archiving of forms. The financial services industry must look for areas of improvement that move towards digitising manual processes and eliminating physical paperwork from order forms, onboarding documents and agreements.

DeeDee Kato, vice president of corporate marketing at Foxit Software, tells *FinTech Futures* about what banks can do to ease the process of digitising paperwork during the coronavirus crisis and the challenges faced with remote working. From scanning documents, using optical character recognition (OCR) to make it text scannable and searchable, to the issues people face when relying on paper located in the office.

"The number one thing that's the most important factor for our banking customers is customer service, as there are many things to think about when going digital, especially during the pandemic since there's a whole uptick in online activities," says Kato.

Statista's July 2020 online activity report shows that "almost 4.57 billion people were active internet users as of July 2020, encompassing 59% of the global population". With such high internet usage comes the need for banks to ensure they can support external parties and internal teams whilst working remotely. "That's where streamlining workflows with robotic process automation (RPA) and machine learning can improve productivity," adds Kato.

Gloria Sánchez, group head of legal for technology and legal transformation at Banco Santander, highlights the need to digitise cumbersome paperwork in a legal setting amid COVID-19. "The legal department tends to be quite traditional," says Sánchez, "the pandemic sped up the need to digitise, although we were already in the process of being fully digital before COVID-19, there is still a lot of work to do within the implementation processes."

Sánchez tells *FinTech Futures* about the importance of improving processes when providing information to regulators. "You may have the information in many documents and many repositories when applying data structure techniques, so you need OCR." This creates a bottleneck as compliance teams must search across departments and verticals in the group to obtain the relevant information for the regulator, an often time-consuming process.

Kato mentions that Foxit's OCR capability solves the problem of static images to making them text scannable, especially when handling multi-page documents converted to text files. A customer can use keyword searches to find critical information and copy and paste values into the regulator's system.

"Regulators often receive these document requirements as paper documents and they mention how they need to make comments and remarks on them and send them to another party, who also had to make a paper copy, which is quite cumbersome," notes Kato, "but now they scan it and apply OCR so it can contain legitimate texts which can now be edited and annotated."

Some of the areas for both Kato's clients and Sánchez' teams that have moved towards digitising their processes are know your customer (KYC) management, converting mortgages and loans documentation, forms processing, compliance and security, signatures, archiving and retention and mobile apps/online banking.

"Our goal is to enable our customers to go fully paperless in each of these areas to significantly reduce operational costs associated with paper and manual processes," says Kato.

> "Our goal is to enable our customers to go fully paperless… to significantly reduce operational costs associated with paper and manual processes."
>
> **DeeDee Kato, Foxit Software**

During the KYC process, banks receive a multitude of files and documents from different clients. These entail identification documents, proof of income, proof of residence and more. The issue arises when the documents arrive in various formats such as scanned images, skewed scans and photos; they all need to be standardised to be easily searchable and retrievable.

"Whilst the goal for banks and credit unions is customer convenience, it's not usually the case the other way around. Customers can send it through a scan or take a picture of it and send it that way, scanned images, large text files, which are less than ideal," notes Kato. An influx of these more static files only increases the KYC or regulatory review process as the documents require remediation before use.

"By converting the documents to PDFs or make use of digital portfolios with PhantomPDF, you can reprocess the documents and keep the original file," adds Kato. This makes collecting and retrieving client information a lot easier for employees working on KYC procedures. For badly scanned images or file types that are way too large, PhantomPDF can automatically re-adjust the image, compress, and convert it to PDF while maintaining the original integrity of the document.

"Firms need to re-think and overcome the challenge of heavy paperwork and manual processes, so they need to meet the customer where they live," says Lil Roberts, CEO at Xendoo. "They live in text messaging, mobile, live chats on website, emails and phone calls. But the problem in the US is that practitioners don't value the customer service side of the business and taking care of small business owners in a timely manner; customers need and want swiftness."

Banks are incredibly reliant on physical documentation when reviewing complex cases like mortgages and home refinancing. Prospective clients submit a lot of documentation such as mortgage payments, tax returns, statement of assets, identification and more.

"We're talking about customer documentation that needs to be deeply reviewed as part of the KYC procedure and in the situation we're in with fluctuating rates, income loss caused by the coronavirus crisis combined with customers preferring to minimise branch visits, we foresee challenges in managing an influx of documentation which never comes in neatly organised or in standardised format and the process can be dragged out," says Kato. "We're the solution to this problem."

Foxit's PDF technology enables banks to not only transition from paper to paperless but also gives them the ability to work with digital documents like they would with paper.

Visit www.foxitsoftware.com for more information on PDFs.

FOOD FOR THOUGHT

One more time, you've got this

By Leda Glyptis

My cousin recently found a photo of me as a 13-year old. I look profoundly unimpressed. I also look about 25. Good thing I stopped styling my hair. And started laughing out loud at the absurdity of the universe. Lifts the years right off ya.

Still, I posted it on Facebook for my old friends from home to see and laugh at with me. Those who knew me and loved me then, despite the grump. Those who still know and love me. The people who knew me before I could ride a bike. Before I had a Cambridge education. Before I had proven anything.

And as you do, I tagged some folks with words to this effect. "Remember me back then? Those of you who have always been there, custodians and guardians of my life." My cousins replied: "Love you, always." My friends replied with cryptic phrases including "fried cheese". I know what they mean. That's what 40 years of friendship brings. A secret language. But my old Coach said thank you. He said: "Thank you, these are big words for someone who often feels small."

Small? To me he was always a giant.

ONE MORE TIME, YOU'VE GOT THIS

Now, I had an incredibly supportive mother. A family who surrounded me with a love so fierce, not even a head cold could get past them. I have friends old and loyal and true. But that was never all and it would never have been enough.

There are moments in your life, like the mouse army that teach you a lot. There are periods in your life that teach you a lot. There are people in your life that teach you a lot, whether they mean to or not. Sometimes you know you are learning valuable life lessons in the moment. Most times you don't.

The reality of our most formative experiences is that they often come too early for us to know how differentiating they are. For instance, I have an awesome mother but it took a very long time for me to know that my "normal" was not everyone's normal and my mother was unusual in a million different ways, all of which gave me wings.

But we may also miss the impact of our formative experiences that come later, because they are too stressful to feel valuable in the moment. Rolling back a major release. Losing a client. Realising you missed something major in a plan. Being backstabbed by a colleague.

All of those situations teach you a lot, but, in the moment, all you feel is bile in your mouth, a hollowness in the pit of your stomach and a fight or flight urge that sets your brain buzzing until you fix, mend, redress, re-establish, shore up, secure.

Sure, afterwards, when the dust settles, the ship is sailing right again and enough time has passed for your emotions to mature into perspective, you will get the learning. But it is not an unadulterated or uncomplicated bit of life wisdom. It comes with scars and bruises. It comes with hurt and fear.

It's complicated. It's useful. But it's complicated.

And although I wouldn't have it any other way, I am also conscious that the learning is contextual. In the detail. Burdened and personal. It's the experience we can't buy, share or short-circuit and so much of it is hard to pass on despite how much we want to protect our teams from making the same mistakes and blunders.

Ultimately, making them is part of the journey. Part of the story. Part of the deal.

So, if we can't do this, what do we do, to help people the way others helped us, when it's our turn to do so? I guess the first thing to do is pause and ask: what has helped the most?

Imagine this…

I am 12. I have literally swallowed half the Aegean sea in a manoeuvre that really didn't work out. It's 6am. I am in the water where I have been every morning of this summer and the summer before and the summer before. Not the beach. The sea. Practicing and failing and swallowing sea water, because before you know how to do something, comes the period of learning. And falling flat on your face. The period of no grace and ease. The period of grit and perseverance. Practice and dogged determination. And a bellyful of sea water. Two of my friends are on the boat waiting their turn. They mock, but lovingly. It's their turn next and the shoe will be on the other foot. We are training for a trick water skiing championship later in the summer and I cannot stay on my feet.

"One more time," says my Coach. "You've got this. One. More. Time." I really didn't have it. But I went at it. Again and again and again. Every day. And every day he said, "you've got this". And every day we got together and tried. Our Coaches. The team. And the water. Every day.

Now. That was 30 years ago. Life has happened for all of us.

My one and only medal from the one and only championship I turned up for is in a drawer in my parents' house. A bronze medal lying tangled with a silver that the organisers gave to my then three year-old sister to stop her from crying. And that, right there, is a life lesson of sorts. But not the one I want you to learn, truth be told.

I haven't water skied in 25 years. Not since one of our two Coaches died in a car crash. But the things I learned with that team and those Coaches on those early mornings of swallowing sea water every time I got the turn wrong and plunged face first into the surf… they are with me always.

The team is a value in itself. You look after them. They look after you. The reason we do this is each other. Not the medals, not the accomplishment. Not even the crazy heady feeling of freedom you get gliding on water with the sun rising above the horizon. We commit to each other to meet on this beach at 5.30am every day, so we do. We commit to each other to compete together. So, we look after ourselves and each other. And we learn to keep trying. Because Coach said, "one more time, you can do this". And you do it for him and by accident get to do it for yourself.

His name is Nikos Varvoglis. And he was right. Imagine this…

You get the job. The job you didn't even go for but found yourself taking anyway. And you are doing your best. But the job is part doing the thing you are paid to do and part evangelising for the organisation to let you do it – and, man alive, nobody wants to hear it. They are not unkind. They are not obstructive. They are just not interested. But you need them to be interested or this won't work. You have a lot of good things to give them, but you can't give unless they take and there are no takers. They are not saying no. But they are not saying yes. You are turning up every morning on this new metaphorical beach, falling flat on your face, swallowing half the ocean and getting nowhere. But you get up the next day and do it again. Not because you remember Coach saying "you've got this" but because he said "one more time" so many times, keeping on keeping on became second nature.

> "Your mentor said you've got this. Off you go, you've got this, she says. Off you go, I've got you, she means."
>
> **Leda Glyptis**

One more time. It's not even a choice. We committed. So, we turn up and we do our best. One more time. And again. Until the day comes when someone says, "ok, I am listening".

And before long they are not just listening, they are opening doors wide but keeping the training wheels on. Invisible to both the world and, most importantly, to you. So, you learn what you can do. You demonstrate what you can do. You keep turning up on the beach, but you are no longer swallowing water.

And your career takes off. And once you have your proof points, and you know what you can do and the world knows what you can do, the next thing gets a little easier. And you learn to believe in yourself. Because your mentor said you've got this. Off you go, you've got this, she says. Off you go, I've got you, she means.

Her name is Adriana Pierelli. And she was right. It's your turn. Now what? We all have our stories. We all have our guardian angels. We all have the people who inspired and supported us.

They often have no idea how much they've done for us (like Coach) or don't believe their impact was unique and irreplaceable (like Adriana). And maybe their ability to write themselves out of your story, out of my story, is part of their legacy and their gift and their greatness. It really was not about them. Not then. Not now.

But if I look back over the years, to every professional success but above all and most importantly to every reversal, challenge, problem or seeming disaster the go-to mantras are always simple. And it was never-ever "you've got this". It was "I've got you".

It was the visceral boost of knowing people have your back even if they can't do anything for you in the moment. Even when they can't help with the thing, whatever it is. Only you can do that. But they are there, and they've got you.

And while life happens and the team assembles and your friends always watch out for you, the most valuable lesson and the most fundamental instinct is "get up!". Try again. One more time. Until you've got this. The hard yards are not optional. And only you can do it for you. But you are not alone while doing it.

And now you are here. And you've got this. And you know how you got here so you know how to get there, and the deal is simple. It's time to pay it forward. To the next guy and gal. The deal is simple. You can't hand it over. You can't do it for them. You can't learn it for them. You turn up. Every day. You open doors, you set the north star, you build the guard rails, you stand by and say: "You've got this. One. More. Time. And again."

One. More. Time. You've got this – until they do, just like you did. And then it's their turn. That's the deal. And then, if you can learn from the greats, you bow out and look on. Because this isn't your story forever. So, while it's your turn, make it good. And whatever you do, don't make it about you.

Leda Glyptis is *FinTech Futures'* resident thought provocateur – she leads, writes on, lives and breathes transformation and digital disruption. She is a recovering banker, lapsed academic and long-term resident of the banking ecosystem.

All opinions are her own. You can't have them – but you are welcome to debate and comment!

Follow Leda on Twitter (@LedaGlyptis) and LinkedIn (Leda Glyptis PhD). Visit our website for more of her articles.

INTERVIEW

Women need to be empowered, not preferred

By Ruby Hinchliffe, reporter, FinTech Futures

Vilve Vene, the woman behind start-up core banking provider Modularbank, thinks it's high time women were celebrated because of their skills and not because of company quotas. "Women need to be empowered, not supported or preferred," Vene tells *FinTech Futures*.

"They have to feel that where they are and who they are is all because of their skills, not because of quotas." The Estonian entrepreneur headed up Swedbank-acquired Hansabank's IT development division back in the nineties, before co-founding four start-ups. These include software firm RevRight, payments fintech PocoPay, banking solution provider Icefire, and Modularbank.

What is Modularbank?

Launched last year, Modularbank has acquired three clients. One is a large financial services group in Finland, another is a Baltic retail group, whilst the third is a fintech listed on the Frankfurt Stock Exchange. The start-up is currently advising Volkswagen's finance division, VW Financial Services, on its digital transformation.

Vene notes that Modularbank is built to help any company – not just banks – digitise financial services. "Modularbank's offering works a bit like Lego," she says. Firms can plug in modules for lending, buy now, pay later (BNPL) solutions and current accounts through application programme interfaces (APIs). All are independent of each other, so firms can mix and match what they want to outsource versus keep in-house.

The fintech is live in Estonia, Finland, the UK and, most recently, Germany – where ex-PayPal manager Lukas Huth heads up operations. Canada is next on the expansion list. Despite facing more established competitors like Mambu and solarisBank, Vene is certain there's space for another player. "The Banking-as-a-Service space is so big," says Vene. "There is space for more than one or two, as each player has different approaches and customer segments." She believes that the firm has more experience building banking and working in a bank, whereas "some of these players can be good at the tech, but not so deep in the business".

"What is this girl doing at the table?"

Vene worked as a system architect, system analyst and a developer at Spin Development/Crebit in 1992. Spin Development was responsible for the IT infrastructure of Hansabank, which she later joined as its head of IT in 1996. Too small to outsource its tech, the start-up's development team – led by Vene – had to build all its banking capabilities from the ground up. "I was lucky to work for a bank like that back then," says Vene. She joined the bank just one year after Estonia's independence, following 50 years of the country sitting in the Soviet Union.

In 2001, a European Commission report found more women unemployed despite on average being more skilled than men. It also found wage differences – women earned only 75.7% of men's net wages – and division of professions between the genders. All these factors blocked full participation of women in the labour market.

The Estonian Gender Equality Law was enforced in 2004. But in 2008, an empirical study of 301 Estonian private sector companies found only 6% of them had bothered to read the act. Even today, "biases are still very strong in Estonia", according to Vene.

As early as 1993, Hansabank was offering its banking products to business customers. It sent Vene to meetings in the UK and Ireland, where there were "always only men around the table". "They looked at me, as if to say: 'what is this girl doing here?'," says Vene. "Then we'd start the discussion, where my boss would always get me to explain things."

Whilst countries like the UK, Ireland and Estonia have got more women to the table since the nineties, there's still a way to go. According to the Women in Financial Services 2020 Oliver Wyman report, women still make up just 20% of executive committees and just 23% of boards. Asked if she thinks things have changed, Vene says "not as much as it could. You still see that c-level executives are mostly grey-haired men, and there are still very few ladies in start-ups too."

Changing attitudes

At the very beginning of the nineties, Vene worked for a Swedish company. One day, she visited her boss at home to find all the domestic chores were divvied up between him and his wife. "The Nordics has been different for years," she says, pointing out that whilst universal attitudes must change, some cultures are a lot more forward-thinking than others. Throughout her career, Vene has noticed that "women often underestimate their skills, whilst men often overestimate theirs".

"In flat organisations, it's easier to empower women and really feel equality," says Vene, especially when women consider management positions, they "start to think that they have to know everything. None of us can know everything. Instead, you have to ask questions."

Vene also thinks there's a big problem with how female entrepreneurs are depicted in the media. She references a survey in Estonia, which looked at how the media writes up interviews with female entrepreneurs. "The first point is always that 'she's extremely hard working' – not simply 'she's talented'," Vene points out. "Then it goes into her routine – 'she wakes up at six, makes breakfast for the family, does the school run, works, then gets back to childcare again in the evening and is asleep by midnight'. You'll never read articles like that about male entrepreneurs."

Vene has two daughters, one of whom studied IT at university. Her lecturer was taken aback by the number of women in his class, prompting him to say: "some of you can become analysts, but engineering? Forget it." It's this attitude to skills and gender which shapes – often negatively – many women's opinions of their own capabilities.

At Modularbank, Vene has tried to curb some of these attitudes by keeping her organisation flat, rather than hierarchical like banks. "In flat organisations, it's easier to empower women and really feel equality," says Vene. Modularbank has around 30 employees, which led Vene to draw up an organisation chart. "It can get inefficient when people lose sight of responsibilities, but that doesn't have to lead to a strict hierarchy," she says.

VILVE VENE: CV

Jan 2019-present CEO & co-founder, Modularbank

Sep 2015-present Co-founder & chair of the management board, Icefire

Sep 2014-present Co-founder, Pocopay

Feb 2016-Mar 2017 Co-founder & CTO, RevRight

Jan 1996-Aug 2002 Head of IT development, Swedbank/Hansabank

Dec 1992-Dec 1995 System architect, system analyst, developer, Spin Development/Crebit

Jan 1991-Dec 1992 System analyst, programmer, SystemArkitekt

Destination public cloud

By James Buckley, vice president & regional director for Europe, Infosys Finacle

The global spend on public cloud services and infrastructure is expected to more than double from 2019 to 2023, according to a report by International Data Corporation (IDC). The spend on public cloud is expected to see a five-year compound annual growth rate (CAGR) of 22.3% in this period. Specifically, banking is among the three industries that together account for more than one third of all public cloud services spending, as noted in IDC's July 2019 report.

This trend, which had been developing for some years, has firmly taken root, bolstered by greater confidence in the public cloud, a healthy Software-as-a-Service (SaaS) market, and the cloud emerging as the preferred environment for executing workloads.

For born-digital businesses, the cloud is the natural choice of platform, and clearly instrumental in their disruption of the traditional banking industry. As open banking brings huge opportunities to those who are agile, flexible, and can interoperate and co-create – the cloud supports all these attributes – it will accelerate adoption further.

In the case of large banks that until now were wary of migrating their workloads to the cloud, it is the availability of public cloud Platform-as-a-Service (PaaS) options, such as relational databases, data warehouses, and Container-as-a-Service (CaaS) offerings on the one hand and of private cloud offerings (in an on-premise like experience) from public cloud providers on the other, that is responsible for the shift. What banks are putting out is also changing: as recently as 2018, the few banks that did use the cloud, migrated only their non-critical workloads; last year, they made some progress in transferring small-sized workloads pertaining to international operations or niche/new lines of business to the cloud. In 2020, banks are expected to be more positive, and move larger workloads connected to a sizeable customer base to any of the several public clouds now available in their home countries.

> "The spend on public cloud is expected to see a five-year compound annual growth rate (CAGR) of 22.3% between 2019 and 2023."
>
> **James Buckley, Infosys Finacle**

GROWTH OUTLOOK

It is estimated that global public cloud revenues will grow by about 17% this year, according to the Gartner Public Cloud Forecast 2020. The financial services industry's spending on public cloud is likely to grow in line with the global trend, as most institutions switch to a multi-cloud environment that supports porting of workloads and seamless delivery of functions across platforms with the hope that this will resolve many of their performance, compliance and cost challenges.

Over the next two years, Infrastructure-as-a-Service (IaaS) and PaaS offerings on the public cloud will grow to account for as much as 28% of hosting and managed services workloads, up from a mere 9% percent in 2019, as reported on the "Multi-Cloud Fundamental to Financial Services' Transformation" whitepaper by Ubuntu. In the last couple of years, use of containers, Docker, and container orchestration tools, such as Kubernetes, has grown sharply. This year, containerisation of legacy applications will be imperative for migrating banking workloads to the public cloud at scale, as an increasing number of banks adopt multi-cloud architectures. Credit must be given to major public cloud providers, such as AWS, Microsoft and Google, who have successfully deployed their CaaS solutions in cloud implementations in new geographies with a complex regulatory environment. As they expanded across the globe in 2018 and 2019, they improved the equation between the public cloud industry and supervisory bodies and other watchdogs.

Since multi-cloud environments are flexible, they allow banks to execute workloads with ease and efficiency. There is a sharp rise in the use of public cloud PaaS services especially relational databases, data warehouse, and CaaS. And this is combined with the trend of convenient private cloud options from public cloud providers that offer near on-premise experience. All these factors are driving banks in migration of workloads that they were typically reluctant to move to the public cloud. Banks had been largely moving noncritical workloads to the cloud till 2018. In 2019, we saw international operations and new lines of business driven being moved to cloud. This was driven by the need for quick roll-outs with limited operations and customer base. 2020 will see banks exploring options to move higher workloads to the public cloud in their home countries with sizeable customer base. Above all, while banks can and should move core banking applications to the public cloud, they must also ensure the data is protected and that they are compliant with all relevant regulations, such as the General Data Protection Regulation (GDPR), Payment Card Industry Data Security Standard (PCI DSS) and more.

> "COVID-19 will force banks to move many of their systems to the cloud that will, in turn, reap benefits such as reduced costs, improved efficiency and productivity."
>
> **James Buckley, Infosys Finacle**

POST COVID-19

As the world is now witnessing the remote means of working and connecting as a new normal across industries, banking is not an exception here. Considering that more than 30% of the middle and back office staff will connect to the banking systems remotely, it becomes all the more important for banks to move their systems to cloud in a manner that access, authorisation and data security is take care of. COVID-19 will force banks to move many of their systems to the cloud that will, in turn, reap benefits such as reduced costs, improved efficiency and productivity.

MORE TO COME

Although interest in the public cloud is increasing globally, banks in the US and Europe are ahead on migrating workloads and establishing new operations out there. For example, in November 2019, IBM announced that it was launching the world's first financial services-ready public cloud along with Bank of America, hosting applications that would serve the bank's 66 million customers. Progressive banks are preparing for the reality of open banking by going cloud-native with their systems and solutions. This year, we expect more banks to follow their example by migrating existing workloads to the public cloud and investing in cloud-native solutions for new and digital-only businesses. Over the next couple of years, the cloud will be front and centre in the transformation of old infrastructure and the driving force of innovation.

COVER STORY: COPYRIGHT

The copyright case shaping the future of software

By Hannu Valtonen, chief product officer, Aiven

Many of us have blocked out noise about the Oracle versus Google case that's been raging since 2010, but as the tech giants prepare to appear before the US Supreme Court in October, it's time for tech leaders to pay attention.

The legal battle, which has snaked through various district and circuit courts for a decade with an original ruling in Google's favour and a subsequent reversal, seeks to answer the question of how copyright law applies to software. The Supreme Court's decision will be final and can't be overturned or reversed, which means this could be one of the most important rulings to-date in the tech industry. Even though the case is being heard in the US, its outcome will undoubtedly have a global impact.

At the heart of the case is Oracle's claim that Google committed a copyright violation when it used Java's application programming interface (API) to build the Android smartphone operating system. Google argues that the question of whether copyright law applies to software interfaces is unsettled and critical to the industry. The Supreme Court must determine if Google's use constitutes "fair use", or if Oracle can claim a victory against the company it says prevented it from entering the smartphone market.

Since almost all of today's software depends on APIs, a win by Oracle would have huge implications for developers and tech companies. If Oracle wins, it will force major changes to the way developers work and the way we must lead them. Here's what these changes might look like.

WHAT COPYWRITING APIS COULD MEAN FOR THE SOFTWARE INDUSTRY

Best practices in software engineering are built around reconfiguring APIs, and the entire industry would grapple with the impact of copyrighting APIs. Should API copyrights become reality, there are several issues IT leaders must prepare to address.

• Competition will become tougher

Companies that create APIs would have a major advantage in the tech industry and become gatekeepers of critical software if APIs fall outside of fair use. Competing with these established software companies will be more difficult as they would have the ability to deny access to APIs to anyone, whether it's a company they disagree with or all companies in general.

Currently, open-source APIs allow start-ups to enter the market by enabling compatibility with existing software, improving service delivery and fostering adoption. Using a new API means companies trying to adopt the solution would need to make infrastructural changes to use the tech. With API copyrighting, tech giants at the top of the food chain are more difficult to unseat.

• APIs could become an expense

A ruling in Oracle's favour would allow companies to immediately monetise their APIs. The system would likely function similarly to Software-as-Service (SaaS) software, in which companies would charge licensing fees for APIs. Though companies like Amazon with popular APIs are likely hoping for an Oracle victory, most companies wouldn't pay for API licences. Buying an API is unlikely to provide much competitive advantage because even though APIs enable compatibility, the coding behind APIs is much more valuable for the purpose of differentiation.

Instead, companies may make small and unnoticeable changes to their codes to make the API just different enough under copyright law, solving operational challenges but creating problems with interoperability. On the other hand, companies may decide to make their APIs open-source and compete to become the industry standard rather than profiting directly. Be wary about using open-source APIs in this universe without altering them if you're concerned about future licensing fees or litigation.

> "Since almost all of today's software depends on APIs, a win by Oracle would have huge implications for developers and tech companies."
>
> **Hannu Valtonen, Aiven**

• Software won't work together as well

In the same way that we use a standard electrical socket rather than many different ones based on our electric providers, a universal standard for software enables cross-compatibility. With all pieces of software operating on unique proprietary codes, applications would become less compatible with each other. Your team would need to tweak the code and learn a new set of APIs to switch from one SaaS provider to another.

It's important to prepare for the possibility that API copyrights become law, but you shouldn't panic yet. Most companies are in favour of a Google win that ensures we can stick to what we know, and it seems the Supreme Court may be, too. The justices requested supplemental material from Oracle and Google in May on the standard of review, implying they may be questioning a decision to overturn an early district court decision for Google. Of course, if the Court makes a ruling based on a procedural issue, they won't create a precedent for APIs and software under copyright law.

Expect a complex trial and stay tuned in the coming months for more hints. Though you don't need to rebuild your application's existing APIs yet, it's wise to create a plan so you can do so quickly and efficiently, if necessary. Then, all you can do is wait.

INVESTMENT & FUNDING

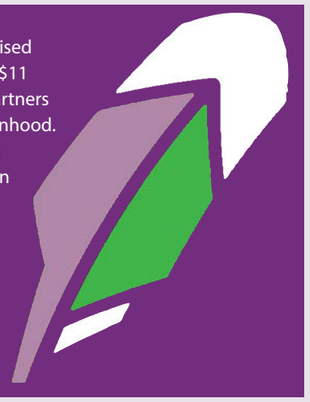
FINTECH FUNDING ROUND-UP

Robinhood, a US-based stock trading app, has raised new equity that gives it a valuation of more than $11 billion. New York-based hedge fund D1 Capital Partners invested $200 million in a Series G round for Robinhood.

Private investors previously valued the trading platform at $8.6 billion in July after its $320 million Series F funding round.

Robinhood says its latest injection of funds will go towards "building [its] core product and improving the customer experience".

The app suffered three separate outages this year after sharp drops in prices led to overwhelming trading volumes.



UK-based challenger, **Atom Bank**, is planning to raise £150 million in a shareholder injection – its largest equity raise to date. The bank aims to go ahead with the raise in the autumn. Investment bank Citi is advising.

If the bank hit its £150 million target it would take the total it has secured from shareholders to around £600 million. Atom Bank is also pursuing an initial public offering (IPO) in 2022.

Atom's existing investors include BBVA, Toscafund, and Woodford Patient Capital Trust. All participated in the bank's last funding, a £50 million raise in July 2019.

TransferWise, a London-headquartered international cross-border money transfer service, has hit a $5 billion valuation after a $319 million secondary share sale.

Existing stockholders and TransferWise employees sold $319 million of their shares in the private company.

The liquidity round was led by new investor D1 Capital Partners, and existing shareholder Lone Pine Capital. Shareholders Baillie Gifford, Fidelity Investments and LocalGlobe have all expanded their holdings in the company.

TransferWise has funded itself exclusively through its customers for the last few years. This secondary round gives new investors an opportunity to step in, and rewards existing investors and employees holding shares.

Silicon Valley-based venture capital firm, **Ribbit Capital**, is forming a special purpose acquisition company (Spac) to target fintech businesses.

The firm plans to raise $600 million for the Spac, which was made public in August, according to two people briefed on the discussions.

Spacs have recently experienced a surge in popularity, raising $13.5 billion in the first half of the year – double the amount raised during the same period in 2019, according to Refinitiv data.

The **Monetary Authority of Singapore (MAS)** has committed SGD 250 million ($182.2 million) in its ongoing efforts to accelerate technology adoption in the country's financial sector.

Over the next three years, the regulator will pour the capital into its existing Financial Sector Technology and Innovation Scheme.

The scheme is also designed to promote large-scale innovation projects and strengthen Singapore's fintech pipeline.

Hippo Enterprises, a competitor to home insurance technology business Lemonade, has closed a $150 million financing round.

The new funding round puts the California-based insurtech's valuation at $1.5 billion. New investors Dragoneer and Ribbit Capital joined existing investors, Felicis Ventures and Iconiq Capital.

Hippo, which was valued at about $1 billion in a funding round last year, is preparing for a potential IPO, says chief executive officer Assaf Wand.

PayActiv, a US-based payroll integration firm, has secured $100 million through its Series C funding round.

The funding was led by Eldridge and includes existing PayActiv shareholders, Generation Partners and the Ziegler LinkAge Fund II.

The round comes less than a year after it became a public benefit corporation.

PayActiv describes itself as "a holistic financial wellness platform for employees to get on-demand access to earned but unpaid wages".

Financial crime, risk and detection firm, **ComplyAdvantage**, has raised $50 million in a Series C funding round.

The firm will use the funds for its international expansion across the US, Europe, and the Asia-Pacific region.

The round was led by Ontario Teachers' Pension Plan Board through its Teachers' Innovation Platform (TIP).

Existing investors Index Ventures and Balderton Capital also participated in the round.

Thought Machine, a London-based core banking provider working closely with Lloyds and Standard Chartered, has landed an additional $42 million.

The fresh capital, set to underpin its expansion across the Asia-Pacific region, adds to its Series B funding round in March which raised $83 million led by Draper Esprit. This brings the round's total to $125 million.

The round extension, which will close in early August, is led by Eurazeo Growth, with participation from new investors British Patient Capital and SEB – a customer of Thought Machine's.

UK-based financial data analytics firm, **Quantexa**, has raised $64.7 million in Series C funding.

The fintech plans to use the new capital to drive its industry growth and boost technology development.

The Series C follows a $22.7 million Series B round secured in August 2018. Quantexa has raised a total of $90 million since its 2016 founding. Evolution Equity Partners led the round, with major participation from pre-existing backers Dawn Capital, AlbionVC and HSBC. New investors ABN AMRO Ventures also joined this round.

Splitit, an Aussie buy now, pay later fintech, has landed $71.5 million to tap the US and UK market.

It secured the capital through a private placement and share purchase agreement. While AUD 90 million ($64.8 million) was committed by institutional investors, a following AUD 10 million in shares will be placed by current investors.

Splitit will invest the capital to strengthen its sales and marketing as part of its growth and expansion plans.

Selina Finance, a London-based lender which provides loans to businesses backed by their personal home, has landed £42 million in funding.

Roughly £12 million of its Series A counts for equity, whilst the remaining £30 million makes up debt to distribute as loans.

Investors Picus Capital and Global Founders joined the funding round.

The start-up says the fresh funding is the start of a bigger debt raise in the coming months. It also plans to use cash injection to prop the imminent launch of a consumer product later this year.

Scalable Capital, a Munich-based investment service which just landed a deal with Barclays, has secured €50 million funding.

The Series D round gives Scalable a post-money valuation of €400 million.

The investment comes from both new and existing investors. These include BlackRock, HV Holtzbrinck Ventures and Tengelmann Ventures.

The fintech plans to use the capital to build more products for its existing customers. It also wants to add more customers in Germany, Austria and the UK, and potentially expand to more countries in Europe.

Chinese online insurance technology platform, **Waterdrop**, has raised $230 million in a new funding round, according to Reuters.

Known as Shuidihuzhu in China, the insurtech's Series D round was led by reinsurer Swiss Re and Chinese internet giant Tencent. Waterdrop's existing investors IDG Capital and Wisdom Choice Global Fund, also participated in the round.

The firm says it will use the new capital to tap into artificial intelligence and big data for its products and services. It also wishes to accelerate its initiatives in medical and healthcare services.

MOVERS AND SHAKERS


Genevieve Kangurs

Photo: Professional Images

Wesleyan Bank, a Birmingham-based financial advisor and banking provider for professionals, has appointed **Genevieve Kangurs** as its new digital head.

Kangurs is TSB's former head of digital experience and adoption. She spent four years at TSB spearheading the bank's digital transformation.

Before TSB, Kangurs spent ten years at Barclaycard.

Former UK chancellor, **Sajid Javid**, is returning to **JP Morgan** after 20 years. The move comes six months after the Conservative Party MP quit his front-bench parliamentary role.

This time Javid is joining the US lender's European advisory council. The council will offer the group advice on its operations in the region after Brexit.

He joined JP Morgan's currencies and emerging markets businesses in New York in 1991. He moved to Deutsche Bank in 2000 and became a Conservative MP in 2010.

His role at the bank will be "strictly ring-fenced" from his political position and has been signed off by the UK government's Advisory Committee on Business Appointments.

N26 chief product officer, **Georgina Smallwood**, left the challenger bank at the end of August to join scooter start-up Tier Mobility. She has been replaced temporarily by N26 co-founder Valentin Stalf.

Smallwood says she wants to work at an early-stage start-up again, in an email seen by Finance Forward.

Wells Fargo's chief compliance officer, **Mike Roemer**, is leaving the bank after two years since joining from Barclays.

His departure occurred shortly after the creation of a set of "divisional risk officers".

Roemer will leave the bank after a brief transition period. His replacement is Paula Dominick, former chief compliance officer at Credit Suisse.

Standard Chartered has hired former UBS executive, **Cat Rüst**, as its new global head of technology.

Rüst joins the bank following three years at UBS as head of innovation technologies for wealth management in Greater China.

Prior to her time at UBS, Rüst spent ten years at digital platform company Exicon, which she founded in 2007.

She will be based at Standard Chartered's Hong Kong office.

Stripe has poached General Motors' chief financial officer (CFO) **Dhivya Suryadevara**.

Suryadevara was named CFO of Stripe, an online payments start-up, on 11 August. Stripe's recruitment of Suryadevara comes after an 18-month search.

Suryadevara was appointed as General Motor's CFO in 2018, becoming the first female finance chief in the carmaker's century-long history.

GM became one of only two businesses in the Fortune 500 with a female chief executive and finance boss.

MUFG Union Bank has appointed **Devon Bryan** as its new chief information security officer (CISO).


Devon Bryan

Bryan has already taken up his new post, working out of the company's Jersey City office. His new role sees him take charge of the IT security strategy across the firm.

He joins from a similar role at KPMG and spent almost four years as the CISO at the Federal Reserve. Prior to this, he worked as the CISO at payroll firm ADP.

Bryan will report to Chris Higgins, chief information and operations officer for MUFG Americas Holdings.

Canadian neobank, **Koho**, is looking for a new chief technology officer (CTO) as **Kris Hansen** steps down after three years.

Hansen is also CTO at venture capital firm, Portag3 Ventures, having held onto the role while working with Koho.

He will be returning to work full-time at Portag3 Ventures and Diagram Ventures to start his "next adventure".

The firm writes on its website that its dream CTO is "a career polyglot technologist who understands the business dynamics and can fashion simple and graceful solutions where others only see challenges".

FINTALK OF THE TOWN

THE "EXPERTISE" EXPERT

Ironically, communications managers are occasionally guilty of miscommunication. A churlish spokesperson intercepted a standard milquetoast interview question about artificial intelligence (AI) and discrimination to protest his client's lack of expertise in the area. One would think that a global head of data engineering, considered widely as an industry leader in the field of machine learning would be capable of holding an opinion on the most widely reported topic concerning AI, recently addressed by the likes of Google and Amazon. The client, surprised to be portrayed as a dunce in his own area of expertise, had no problem addressing the issue and providing an adequate response. Perhaps this former Daily Mail reporter falsely projected their own reticence to address the social and political dimension of AI onto their client; after all, for Carl Jung, Hermes was both the messenger god and the god of the unconscious.

OMNICHANNEL PR

Whatever happened to the age-old saying that "less is more?". It's certainly a lesson worth revisiting for some public relations firms who feel the need to send the same item via all known communication channels. It's not enough to click delete or mark as junk on the inbox, as they will find you. The same tired press release will find itself in your gloomy LinkedIn inbox, or perhaps you're tagged in a post unknowingly – filtering through the notifications you receive as like after like appears on your feed about a post you know nothing about. It can make its way into your Twitter messages with a humourless gif in tow. Maybe it's time to re-evaluate this strategy as this manoeuvre will not make the story more interesting to the beleaguered journalist on the other end.

BY THE AEGEAN SEA

Word on the Athenian streets is that a large network service provider in the Hellenic Republic is in advanced talks to be acquired by a European payment systems company. It was only a year ago that the network service provider had its offices inspected by the country's competition watchdog for potential "anti-competitive practices of horizontal agreements or exclusionary practices in the provision of banking and payment services in violation of free competition". If the rumour mill is churning out the truth, the deal might lead to a potential anti-competition probe by the regulators – then again, competition watchdog have been muzzled lately – all bark, no bite.

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