



Open Banking: The New Customer Frontier

Why the move to an API economy will give forward-thinking banks and service providers the edge in tomorrow's market.

Welcome

To anyone working in financial services, the term 'Open Banking' will now be entirely familiar. The industry is in the process of moving from a relatively closed model, in which a customer's data remained with his or her primary financial-services provider, to a much more open economy.

Within this new economy, consumers will be free to share their financial history and other relevant data with any regulated financial-service provider they wish. And banks in many jurisdictions are now obliged by regulators and lawmakers to make their systems interoperable with those of fintechs and other providers, making this access to consumer data easy, instant and seamless.

In this new open ecosystem, fintechs and other third-parties will have the insights they need to offer consumers tailored and targeted financial products at highly competitive rates. This, along with the challenge and cost of adapting their infrastructure, has led many incumbents to view Open Banking negatively: as a cost, a risk and a disruption.

At xLabs, the digital innovation hub of Virtusa, we believe that Open Banking has the potential to be the best thing that has happened to banking and financial services in a generation. It will help forward-thinking banks and financial-service companies develop the infrastructure, business models, innovative new products and the internal skill-sets they need not only to survive but to thrive in a market shaped by fast-changing consumer demands. And because this work is done in a safe but real-world virtual environment, there is no risk to running systems.

In this white paper, we look at why Open Banking is an opportunity more than a threat. And we examine what banks and other financial-services companies can do to meet the initial challenge of transformation and then to go beyond that first step by developing new business models that will anticipate changing consumer demands and build the winning companies of tomorrow.

We hope you find this paper useful.

Best wishes

Senthil Ravindran

Executive Vice President and Global Head of xLabs, Virtusa Corp.

Contents

Why Open Banking?	4
The challenge and the opportunity of Open Banking	6
Open services and the customer opportunity	9
The rise of the challengers	12
Open Banking and the future of financial services	15
Conclusion	18



Why Open Banking?

The benefits of Open Banking are clear. With access to consumer data, financial-service providers can precisely tailor the products they offer to each consumer's needs and according to highly accurate and personalized risk profiles developed using advanced AI. But why is this happening now? Broadly speaking, there are three factors currently driving the move toward Open Banking: regulatory pressure, emerging competitive pressures and new social agendas.

The regulatory drive to Open Banking

Probably the best-known regulatory drive to Open Banking is the EU's passage of the Revised Payment Service Directive (PSD2). PSD2, which came into force on 13 January 2018, obliges European banks to develop standardized application programming interfaces (APIs) that open their customers' data to other regulated financial-service providers.

But the EU is by no means alone in legislating for Open Banking. Regulators in other parts of the world, often driven by emerging social agendas, are also re-framing laws and regulations to promote a shift to open ecosystems. For instance:

- **Hong Kong:** in January 2018, the Hong Kong Monetary Authority (HKMA) launched its Open API framework, designed to increase competitiveness in financial services, bring financial inclusion to new consumer segments and improve customer experience ^[1].
- **The United States:** on 1 August 2018, the US Treasury released a report recommending that US state and federal legislators move toward a presumption of Open Banking, encouraging institutions to allow consumers to share their data freely and securely ^[2].
- **India:** by creating standardized banking APIs, building the Unified Payments Interface (a single country-wide electronics payment standard) and issuing bank licenses to digital banks, Indian regulators have given the country a strong push toward Open Banking ^[3].
- **Australia:** In May 2018, the Australian federal government gave the country's four biggest banks until July 2019 to make their customer data accessible to third-party providers. The government has also agreed to regulate for Open Banking ^[4].
- **United Kingdom:** in 2016, the UK's Competition and Markets Authority announced a wide-reaching package of reforms to the financial-services market which would require banks to move to an Open Banking model by no later than 2018 ^[5].

1. A summary of the new Open API framework in Hong Kong, and how it compares with PSD2. 3 April 2018, Graham Rothwell, Accenture.

2. The Path Forward: US Treasury Releases Fintech Report. 14 August 2018, Ana Badour & Arie van Wijngaarden, McCarthy Tetrault.

3. Indian banks can do more to make Open Banking obvious path to prosperity. 14 February 2018, Global Data Technology.

4. Open Banking framework comes to Australia. 21 June 2018, Graham Rothwell, Accenture

5. CMA paves the way for Open Banking revolution. 9 August 2016, Competition and Markets Authority.

New social agendas

According to the World Bank, 2.5 billion people globally are financially excluded ^[1]: meaning they have neither a bank account nor access to other financial and payments products they need to participate in the modern economy.

Financial exclusion locks its sufferers into poverty, preventing them from selling their labor or products efficiently on the open market. Increasingly, it also excludes them from the growing digital economy, creating what Mastercard CEO Ajaypal Singh Banga calls “islands of the unbanked”; areas in which the financially and digitally excluded can only transact with each other ^[2].

Across the globe, regulators see the expansion of digital banking and payments as one of the best ways of getting financial services to previously excluded populations, often in remote locations with no branch nearby.

“Financial inclusion in the digital economy has the great potential to help users enter new goods markets and new credit markets”

Haruhiko Kuroda, Governor of the Bank of Japan in 2017.

Emerging digital competition

From the success of M-Pesa mobile-money in East Africa to the expansion of Indonesia’s Go-Jek ride-hailing app into digital payments and the rise of online-only credit card company Nubank in Brazil, customers are bypassing traditional banks in favour of new tech challengers:

This emerging tech competition to traditional banks comes in three forms:

- **Challenger banks:** digital-only upstart banks such as Monzo in the UK, Fidor and N26 in Germany, BBVA in Argentina and Digibank in India.
- **Big tech:** Amazon, Facebook and Google are moving into finance markets. In August 2018, for example, Facebook was reported to be actively developing financial products ^[3].
- **Fintechs:** rather than replace banks wholesale, fintechs could slice profitable services, for instance payments, leaving banks with the less lucrative core account services.

Together, the social imperative, regulatory pressure and growing digital competitive are driving the financial-services market to an open model. Those companies — incumbents and challengers — which best anticipate and adapt to the new shape of the market, will be the ones which dominate the future of financial services.

1. Financial Inclusion. 2 October 2018, The World Bank

2. Anjaypal Singh Banga, Mastercard President and CEO, Mobile World Congress, Innovating for Inclusion. 3 March 2015, Barcelona.

3. Facebook to Banks: Give Us Your Data, We’ll Give You Our Users.

The challenge and the opportunity of Open Banking

Commonly, when the finance industry discusses Open Banking, it's as a challenge.

There are good reasons for this. The move to an API-led ecosystem must overcome a range of obstacles:

- **Technical integration:** banks often have a complex eco-system of different platforms, many decades old, which they must find a way to integrate with Open Banking APIs.
- **Reforming the business model:** banks will no longer have a captive audience of consumers about whom they have an elevated level of insight and to whom they have privileged access.
- **Renewing the business culture:** to answer the challenges of Open Banking, companies must change their internal cultures, encouraging the acceptance of openness and rapid change.

In theory, the technical challenge of integrating complex systems with Open Banking APIs should not be an insurmountable obstacle.

“Our research shows that today, banks are driving their Open Banking initiatives to either reduce the cost of non-differentiating processes, such as compliance, or increase revenue from differentiating processes, such as new products. Open Banking will enable the most efficient providers to deliver a service that reduces the levels of cost and capital committed by customer-facing institutions, who can then allocate capital to higher-return activities.”

Andy Efstathiou, Banking Research Director at NelsonHall

Using a technology such as an enterprise service bus (ESB), the company can put a “wrapper” around its legacy systems. The legacy platforms must then simply output to the ESB, which passes the relevant data to the Open Banking systems.

Changing the culture and business model is more of a challenge. In an Open Banking environment, banks effectively become data brokers. They gather data on their customers and use that data to rapidly develop products and services which customers — their own and those of other institutions — want to buy.

To win, they must be flexible and adaptive enough to monetize their own data in close to real-time, while fending off competition from third-parties and successfully competing for clients of other providers.

Why the GDPR makes Open Banking more complicated

As well as dealing with the ways in which Open Banking will change their business model and their relationships with customers, banks must also reckon with the complexities it adds to GDPR compliance. Some of the main GDPR challenges of Open Banking are:

- Ascertaining the right level of user consent at each stage — specific to the data and use case required — and retaining proof of that consent, including how and when it was obtained.
- Providing the Open Banking customer clear information on what data is being gathered and why, across a highly complex and dynamic set of use cases.
- Ensuring that the bank has clear policies on how long data is kept for, that the consumer understands these policies and the bank's business units adhere to them.
- Putting in place systems and procedures for revoking a data-controller's access to specific data that are robust and flexible enough for a dynamic Open Banking environment.



***UK Open Banking market alone
will be worth £7.2 billion
(roughly \$9.4 billion) by 2022 ^[1]***

Open Banking is also an opportunity

A recent report by PwC predicts that the UK Open Banking market alone will be worth £7.2 billion (roughly \$9.4 billion) by 2022 ^[1]. In markets across the world, the rise in accessible, easy-to-use digital finance promises to bring millions more consumers into the financial-services ecosystem and to increase the spend of those already in it.

Banks currently considering how to respond to Open Banking should remember the following:

- **First movers will have the advantage:** banks which begin the process of adapting now will be better placed to prosper as the Open Banking market matures.
- **Bank-fintech partnerships work:** many banks already have successful fintech partnerships, giving them fast access to new services, capabilities and business models.
- **Consumer demands are changing:** Open Banking gives companies the chance to re-connect with consumers whose habits and demands are changing and who might otherwise be lost.

“The key to winning at Open Banking,” says Hans Tesselaar, the Executive Director at Banking Industry Architecture Network (BIAN), “is to define your business need and then to develop an Open Banking model that meets that need. For instance, if you’re a tier-one or tier-two bank, you need to know how your current business model will change in an Open Banking era and what business opportunities you’re trying to address. Once you’ve done that, you can start to move to Open Banking with confidence.”

What is BIAN?

Established in 2008, the Banking Industry Architecture Network (BIAN) is a collaborative not-for-profit ecosystem formed of leading banks, technology providers, consultants and academics from all over the globe.

The BIAN API Exchange

BIAN has recently launched its API Exchange, developed collaboratively by a group including Virtusa, BIAN member banks, and IT businesses, is an open, flexible, enterprise-grade computing platform hosted on the Microsoft Azure cloud infrastructure. The exchange currently features over 65 standardized API definitions that allow banks to reduce the complexity of building and delivering Open Banking capabilities by providing clear guidance on how to implement innovative and intuitive digital services across both back-end and customer-facing functions.

The BIAN API Exchange was built on Virtusa’s Open Innovation Platform, allowing banks to modernize their critical legacy infrastructure and adopt standardized frameworks to facilitate more open and easy collaboration with FinTechs and RegTechs. BIAN’s API Exchange also consists of community-building collaboration tools such as wikis, forums, and ideation billboards where API and microservice creators and consumers can collaborate dynamically to create and use BIAN-based API implementations.

1. Open Banking sector set to quadruple in value, researchers predict. 28 June 2018, Kristy Dorsey, Insider UK.

Open services and the customer opportunity

The first phase of any bank's response to Open Banking, is one of overcoming the initial challenge: building APIs to safely make customer data available to third parties. Despite the complexities it presents, the technology and infrastructure required to do this are already available.

It's important to realize, however, that this investment in Open Banking infrastructure has the potential to yield dividends far beyond simply ensuring compliance with the new Open Banking regulations.

The key to monetizing the company's investment in Open Banking is to understand how the new processes and outputs created by the Open Banking APIs relate to customers' needs and then to turn those outputs into marketable products and services.

5 instant opportunities from Open Banking

There are many ways in which financial-service providers can benefit from Open Banking today. Here are five examples:



Be the disruptor: don't just protect a market others are disrupting. Use data to develop new products (funds, fixed-term contracts, personalized products etc.) and enter new markets.



Partner with fintechs: rather than seeing fintechs as competitors, build a relationship with compatible third-party providers which allows you to rapidly extend your reach and capability.



Reduce friction: some of the most innovative fintechs and challenger banks use AI to allow customers to buy new financial products in just minutes, using an app or website. You can too.



Find new customers: with an API-based system, it's easier to move to an omnichannel customer model, making it easier to sign up new customers on the web and on mobile devices.



Monetize your APIs: with the right licensing, banks can monetize non-sensitive parts of their APIs to provide white-label services to other firms, achieving an instant return on investment.

Larger banks, able to move and adapt quickly to the new open-API economy, also stand to gain a significant first-mover advantage.

Even banks which currently have no business need or imperative to move toward more than the most basic open-APIs will still have to reckon with customer expectations shaped by Open Banking.


Eventually, their lack of an open infrastructure will be a handicap. This will give those banks which did implement Open Banking early on a significant competitive advantage.

Meeting the needs of a changing market

In March 2018, the press reported that the investment bank JPMorgan Chase and bank-holding company Capital One were in negotiations with Amazon to create an online-only current account ^[1]. At around the same time, Google said it was actively partnering with several European banks to find ways of offering new and innovative payment services to customers ^[2].

Nor are the banks only partnering with tech giants. There have already been several promising joint projects between banks and fintechs. Examples of successful bank-fintech partnerships include:

- **Commerzbank and IDNow:** fintech IDNow helped Commerzbank customers identify themselves using video when opening an online account, increasing conversions by 50% ^[3].
- **BBVA and Azlo:** in Spain, BBVA is working with fintech Azlo to provide online accounting and cross-border banking to workers in the gig economy ^[4].
- **Coutts and Mortgage Brain:** In 2018, Coutts partnered with fintech Mortgage Brain to make its products available to high-value clients through a voice-activated mortgage search ^[5].
- **Bank Independent and Enacomm:** an Alabama community bank, Bank Independent, partnered with software company Enacom to allow customers to bank via Amazon Alexa ^[6].



Even banks which currently have no business need or imperative to move toward more than the most basic open-APIs will still have to reckon with customer expectations shaped by Open Banking.



With the right technical underpinnings — platforms and working practices which allow close and secure collaboration — partnership with fintechs and tech companies is a highly effective way for banks to react quickly to the advantages offered by Open Banking. It allows banks to offer new products and services quickly, drawing on expertise they wouldn't easily be able to build in house while at the same time allowing the banks to maintain their core banking systems and processes which they heavily rely upon.

The AFIN initiative

The ASEAN Financial Innovation Network (AFIN) is an international initiative designed to encourage and facilitate innovation and collaboration between financial institutions and fintechs. An emphasis will be placed on supporting financial inclusion and give more people access to digital financial services.

AFIN's API Exchange -APIX is the world's first cross-border open-architecture marketplace which will enable:

- FIs and FinTech firms to connect to one another through a globally curated marketplace
- Collaborative experiments in a sandbox among financial industry participants
- adoption of APIs to drive digital transformation and financial inclusion across Asia-Pacific.
- A global consortium led by Virtusa, which includes Deloitte, Percipient and Fidor, has been selected to develop and operate APIX.

1. How would regulators react to Amazon-JPM checking partnership? 5 March 2018, Rachel Witkowski, American Banker.
 2. Google says it is looking to partner with banks, not be their rival. 8 March 2018, Charlie Taylor, The Irish Times.
 3. Case study: Commerzbank, 13 July 2017, IDNow.
 4. BBVA Partners with Azlo to Empower Workers in the Gig Economy. 19 February 2018, David Penn, Finovate.
 5. Coutts partners with fintech firm Mortgage Brain. 19 October 2018, Rachel Addison, FT Adviser.
 6. Bank Independent partners Enacomm for Alexa skill. 17 October 2018, Finextra.

The rise of the challengers

The disruption posed by digital transformation and the rise of Open Banking is not theoretical. It's already happening. Speaking in 2017, Ralph Hamers, the CEO of ING Bank, said that his company aspired to be a "tech company with a banking license" ^[1].

Coming from the head of a bank that has been trading since 1743 this is a bold statement. And it underpins a crucial point about the growing challenge to traditional banking business models — much of it is coming from the banks themselves, at least from the most forward thinking of them.

HSBC, for instance, has already launched an aggregator app which allows its customers to see information about all their financial products in one place. In Open Banking jargon, HSBC has become an Account Information Service Provider (AISP) — a fintech.

Other examples of incumbents moving into Open Banking include Mitsubishi UFJ's experiments with its own 'digital currency', pegged at 1:1 with the Yen and optimised for mobile shopping ^[2]; in North America, the Royal Bank of Canada opened its own API portal, to encourage third-parties to develop products for its customers ^[3]; and in Latin America, Banco Santander Mexico is reaching out to small businesses with digital-only loans which can be processed and approved in just one hour ^[4].

In Spain, BBVA — the country's second largest bank — is in the process of becoming a fully digital company. 92% of its products are available through its mobile app, with no need to visit a branch. And management has said it aims to be "as nimble as a fintech" ^[5].

Not only are these forward-thinking banks acting like fintechs, they also have the advantage of already having a direct relationship with the consumers. Banks not thinking in this way, risk being left behind.

1. 'We want to be a tech company with a banking license' – Ralph Hamers. 8 August 2017, ING.

2. Mitsubishi plans digital currency tests. 17 May 2018, Finextra

3. Royal Bank of Canada opens API developer portal. 21 March, Finextra

4. Santander targets faster SME loan growth with digital push. 27 September 2018, James Young, Bnamericas.

5. For Spain's banks, survival means digital. 16 November 2017, Ian Mount, The Financial Times.

Big tech threatens finance disruption

In February 2018, finance chiefs from across Europe — including executives from banks such as BBVA, ING and Lloyds — warned that the entry of big tech into finance risked destabilizing the financial-services industry ^[1]. Facebook, Amazon, Google, Alibaba and Tencent will “replace many banks”, warned the financiers, calling for stricter regulation to ensure that newcomers from the world of tech operated on a level playing field with incumbent banks.

“That [the entry of big tech into banking] is a threat to banks — because they have much more money to burn.”

Ralph Hamers, ING CEO, in conversation with The Financial Times.

The signs are that big tech’s move into finance is already well underway. In January 2018, the China Securities Regulatory Commission gave Tencent a license to sell financial products to the one billion users of its WeChat platform ^[2]. Meanwhile, Tencent-backed challenger banks Airwallex and N26 have applied for banking licenses in Hong Kong and the UK, respectively ^{[3][4]}.

In the Western hemisphere, a report by Bain and Co estimates that Amazon Bank, if Jeff Bezos decides to create it, could poach 70 million customers from incumbent banks within just five years of its launch ^[5]. Meanwhile, a Forrester report entitled “Why Google Bank Won’t Happen”, predicts that rather than launch a bank, Google is likely to move into discreet high-margin services, leaving the low-margin activities to incumbents ^[6].

1. Finance chiefs warn on Big Tech’s shift to banking. 4 February 2018, Martin Arnold, The Financial Times.

2. Tencent gets a licence to sell mutual funds to WeChat’s 1 billion users in China. 4 January 2018, Maggie Zhang, South China Morning Post.

3. Tencent-backed Airwallex to join push for Hong Kong virtual bank license. 31 August 2018, Enoch Yiu, South China Morning Post.

4. Tencent-backed mobile bank N26 launches in the UK and plans US expansion by early 2019. 3 October 2018, Ryan Browne, CNBC.

5. Bank of Amazon could woo 70 million US customers within five years. 9 March 2018, Finextra.

6. Why Google Bank won’t happen. 30 July 2014, Finextra.

The growth of fintech

By 2020, global investment in fintechs is expected to reach \$40 billion ^[1], up from \$31 billion today ^[2]. Globally, 83% of banking executives believe at least part of their business is at risk because of the rise of fintech ^[3].

The impact of fintech on the banking sector can already be seen in the rise of digital-only challenger banks, many of which have already built a substantial customer base. For instance:

- Monzo in the UK (750,000 customers) ^[4]
- Fidor in Germany (200,000 customers) ^[5]
- Digibank in India (2 million customers) ^[6]
- Chime Bank in the USA (750,000 customers) ^[7]
- Neon Bank in Brazil (600,000 customers) ^[8]

Although small in comparison to incumbent banks, the challengers have enough customers to allow them to test new business models and new digital financial products highly effectively. Nor are digital challenger banks the only challenge incumbents face from fintech.

Like big tech, fintech can disaggregate services that once were all provided by the banks. Already, there are successful fintechs concentrating on areas including lending (Avant, Kabbage, SoFi), payments (Venmo, Adyen, PPRO), instant money transfers (TransferWise, WordRemit, Swish) and Insurance (Cuvva, Lemonade, Simpleurance).

The best way for the banks to prevent their business being disaggregated by fintechs such as these, is for them to embrace Open Banking themselves.

1. Total value of Fintech investments worldwide from 2008 to 2020 (in billion U.S. dollars). Statista.com.
 2. Global fintech funding tops US\$31B for 2017 -- fueled by US\$8.7B in Q4: KPMG's Pulse of Fintech report. 13 February 2018, Kent Miller, KPMG.
 3. Redrawing the lines: FinTech's growing influence on Financial Services. 2017, PwC.
 4. Monzo Could Reach 1M Users In Months. 2 July 2018, Pymnts.com.
 5. Challenger bank Fidor reaches 200,000 customers. 30 August 2018, Karl Flinders, Computer Weekly.
 6. Digibank: Riding the digital wave. 2 May 2018, Salil Panchal, Forbes
 7. The challenger bank Chime says it has 750,000 millennial customers. 23 January 2018, Penny Crosman, American Banker.
 8. Brazilian Fintech Startup Neon Raises \$22M. 3 May 2018, Mary Ann Azevedo, CrunchBase.

Open Banking and the future of financial services

According to Accenture, 48% of consumers expect a personalized experience from their banks and other service providers ^[1]. Increasingly, young people prefer to bank online.

A study by eMarketer found that 76% of 18-34-year-olds used online banking ^[2]. Nor did this figure drop off greatly among older demographics, remaining at 72% for 35-44-year-olds and 64% for those aged 45 to 54.

Yet today, only an average of 25% of banking products are available to buy online ^[3]. There is an irony in this situation: the most data-driven industry of all is one of the slowest in embracing the digital transformation that would help it fully monetize the consumer data it gathers and processes. Not only does this put banks at a disadvantage compared to more nimble competitors, it also makes it more difficult for them to anticipate changing consumer habits and preferences.

The online and mobile revolution

Research conducted in 2018 by PwC found that only 25% of consumers say that they wouldn't open an account with a bank that didn't have a local branch ^[4]. By contrast, 15% said they now did most of their banking on their smartphone, up sharply from 10% the previous year and expected to continue to rise. A further 20% said they mainly used their PC or laptop to do their banking.

Globally, the digital banking market is expected to be worth \$29 billion by 2023, up from just over \$7 billion in 2016 ^[5]. A recent report by Wells Fargo found that 83% of US consumers use mobile banking ^[6].

Faced with customers who still value branches but who increasingly want to be able to buy a full range of financial products over whatever channel suits them, banks must find a way to respond. They need to move to responsive, omnichannel business models that seamlessly integrate data from phone, branch, app, online and other channels. Moving toward Open Banking, which depends on a micro-services-based and intelligent API-led framework, gives them a head start in doing this.

1. Put Your Trust In Hyper Relevance. Robert Wollan, Rachel Barton, Masataka Ishikawa and Kevin Quiring. 2017, Accenture.

2. Would Consumers Put Their Money in an Amazon Bank? 20 September 2018, Krista Garcia, eMarketer.

3. How Digital Banking Can Meet Young Customers' Expectations to Survive in the Age of Disruption. 8 February 2018, Finextra.

4. PwC's 2018 Digital Banking Consumer Survey: Mobile users set the agenda, June 2018, PwC.

5. Online Banking Market Expected to Reach \$29,976 Million, Globally, by 2023. 2 October 2017, New Allied Research.

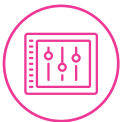
6. Mobile banking is more important than ever. 16 January 2018, Jaime Toplin, Business Insider.

How to win in the omnichannel future

Financial services is moving from a relatively closed model to one in which customers demand a high level of flexibility, interoperability and choice. A recap of key trends can be summarized as follows:



The move to open: customers will be able to move their data from one provider to another, using that data to get personalized, tailored products and services at the best rate.



Interoperability: customers will expect products from different providers to be mutually compatible and easy to aggregate through a single dashboard or interface.



Omnichannel: customers will expect to be able to do everything, including open an account or buy a product, through a range of digital and real-world channels.



Data-driven: to achieve the levels of personalization and responsiveness customers demand, banks will need to develop real-time, data-driven business models.

To win in such an environment, banks and other financial service companies need to move to a new development model, in effect becoming a “tech company with a banking license”. This new model will be:



Collaborative: the ability to securely and confidently with third-parties and industry partners develop compatible products, services and APIs.



Compliant: the new model will have compliance built into the development environment, so even quick-turnaround projects will confidently meet required regulatory <!-- Generator: Adobe Illustrator 23.0.1, SVG Export Plug-In -->



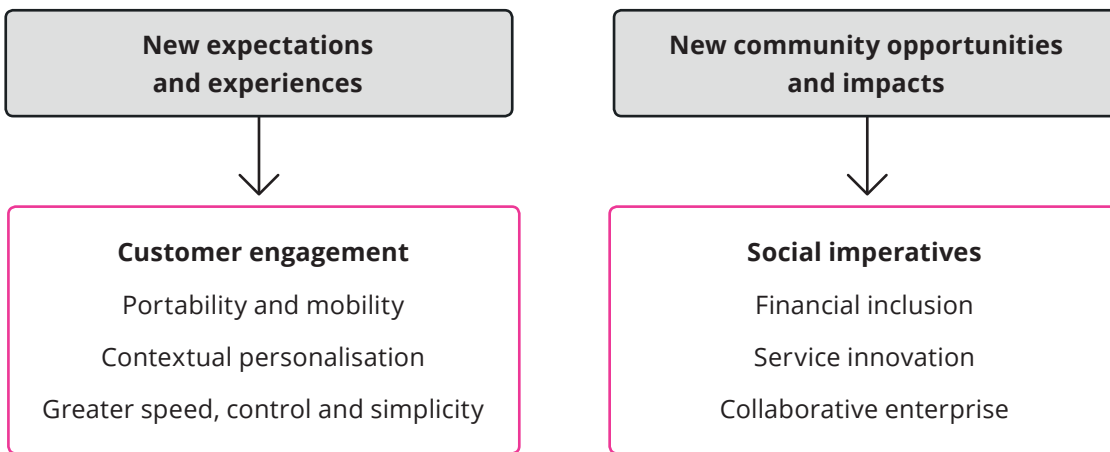
Secure: to facilitate collaboration between companies, development environments will need to be secure and cloud-hosted.



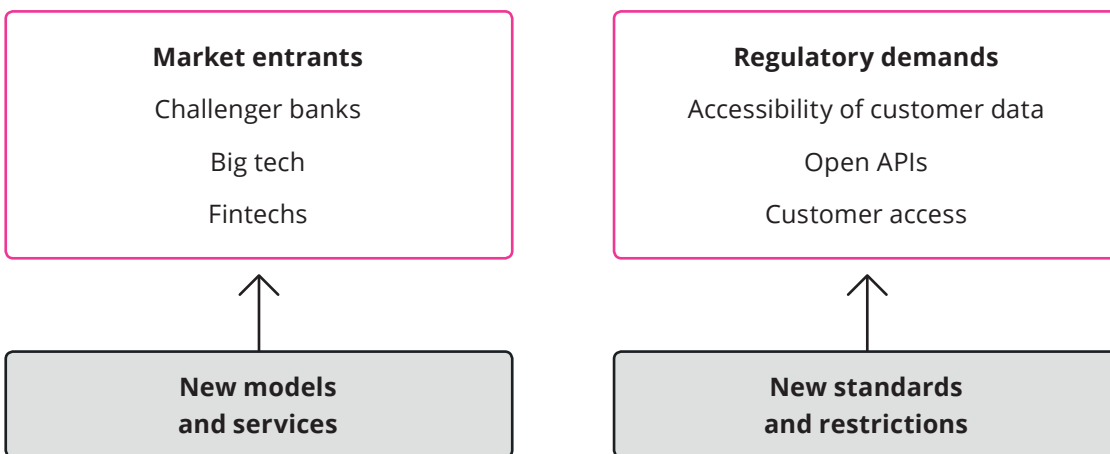
Standards-based: using industry-standard protocols and APIs, the open-era development process will facilitate easy interoperability between different companies and systems.

Moving toward a light-weight, collaborative and standards-based development environment based on these principles is vital for any financial-services provider planning not just for the technical challenges of a move to Open Banking but also to prosper in a future Open Banking market.

Towards a new market dynamic



Open Banking: The New Customer Frontier



Conclusion

The move to Open Banking is often regarded as a technical challenge and threat to existing business models. This overstates the complexity and risk of Open Banking and hugely understates the business opportunities it brings with it.

With the right partners and the right programming environment — one that facilitates fast, collaborative and standards-based development — banks can easily master the technical and operational challenges posed by Open Banking.

Using standard APIs and an enterprise service bus (ESB), banks can develop scalable systems that are not only interoperable with those of their partners, but which also meet consumer expectations for value, usability and customer experience.

And by moving to this business model now — with the technical, cultural and operational fitness it implies — banks are setting themselves up for success in the highly open and competitive market of the future.

Virtusa xLabs provides industry-leading digital infrastructure that helps financial institutions accelerate innovation and drive digital business transformation at scale. Its human-centered design approach for customer journeys and cloud-based platform solutions facilitate rapid experimentations with emerging technologies, and collaboration with disruptive fintechs. These are the right mix for organizations to pave the way for Open Banking adoption, build new digital native business models and discover unconventional revenue streams.

For more information, please contact xlabs@virtusa.com or visit www.virtusa.com/open-banking

About xLabs

xLabs is the digital innovation hub within Virtusa Corporation, set up to help organizations accelerate their tech innovation and digital transformation and leverage disruptive technologies to deliver the best value for them.

xLabs combines design thinking and digital engineering to reduce time and costs associated with identifying, evaluating and exploiting new technologies to create competitive advantage for its clients.

The hub provides a cloud-based environment with a built-in Open API layer and microservices sandbox, modular AI components, blockchain capabilities and a banking model data set enabling to run quick experiments and turn ideas into MVPs.

About Virtusa

Virtusa Corporation (NASDAQ GS: VRTU) is a global provider of Digital Business Transformation, Digital Engineering, and Information Technology (IT) outsourcing services that accelerate our clients' journey to their Digital Future. Virtusa serves Global 2000 companies in Banking, Financial Services, Insurance, Healthcare, Telecommunications, Media, Entertainment, Travel, Manufacturing, and Technology industries.

Using a combination of digital strategy, digital engineering, business implementation, and IT platform modernization services, Virtusa helps clients execute successful end-to-end digital business transformation initiatives.

Virtusa engages its clients to re-imagine their business models and develop strategies to defend and grow their business by introducing innovative products and services, developing distinctive digital consumer experiences, creating operational efficiency using digital labor, developing operational and IT platforms for the future, and rationalizing and modernizing their existing IT applications infrastructure. As a result, its clients are simultaneously able to drive business growth through digital-first customer experiences, while also consolidating and modernizing their IT application infrastructure to support digital business transformation.

Holding a proven record of success across industries, Virtusa readily understands its clients' business challenges and uses its domain expertise to deliver innovative applications of technology to address its clients' critical business challenges. Examples include building the world's largest property & casualty claims modernization program; one of the largest corporate customer portals for a premier global bank; an order to cash implementation for a multinational telecommunications provider; and digital transformation initiatives for media and banking companies.

Founded in 1996 and headquartered in Massachusetts, Virtusa has operations in North America, Europe, and Asia.

Acknowledgement

We would like to thank Hans Tesseelaar, Executive Director, Banking Industry Architecture Network for his valuable insights and contribution to this paper.

Copyright © 2019 Virtusa Corporation. All Rights Reserved.

