

WORLD FINTECH REPORT 2019



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Preface

Since publishing our inaugural *World FinTech Report* in early 2017, the financial services industry has been grappling with changes spurred by open banking. Now the stage is set for the transition to an impending future phase we call Open X. Four fundamental shifts in market dynamics exemplify Open X: moves from Product to Experience, Assets to Data, Ownership to Shared Access, and Building or Buying to Partnering.

As a result, Open X will allow the industry to leapfrog open banking principles and foster a seamless exchange of resources, improved experience for customers, and expedited product innovation. And although today's incumbent banks may not be perfectly suited to orchestrate this Open X ecosystem, they can profitably succeed in new roles.

Only a short time ago, the FinTech era dawned, with agile challengers offering customers quick and convenient single services to compete with the bundled-products model of established banks. Today, amid a surge in partnerships and collaborations, banking products and services are being rebundled via a more convenient and fluid platform and the actual provider of any one service seems less critical than banks' control of touchpoints and ability to deliver superior customer satisfaction.

The open ecosystem of the future will feature emergent new roles that challenge traditional banking assumptions. Firms will be required to assume a position that aligns with their core capabilities and external operating environment. Ecosystem players will strategically decide to act primarily as a Supplier, Aggregator, or Orchestrator. They will work to enhance the value in each of these roles by leveraging data and expanding into non-financial products and services. Incumbent banks that effectively enhance their integrated (traditional) model will be best positioned for success.

The focus should not be legacy products, but on leveraging data that helps to drive customer value, provide integrated services, and enable data and insights-driven decision making. Moreover, technologies such as machine learning, artificial intelligence, and blockchain will increasingly become useful to improve efficiency, foster innovation, and boost the quality of production and distribution of financial services.

Although nascent, the new ecosystem is quickly evolving. Incumbents, newcomers, and third parties will need to collaborate to address and overcome uncertainties and ambiguity around process standardization, regulations, and entity roles.

The emerging open banking ecosystem, invariably to be followed by Open X, provides a broad range of new opportunities. While a few players have taken initial steps forward, many remain unaware of prospects or potential threats.

We believe those players that strategically select complementary partners, adapt their business models, leverage new technologies, and recruit talent with pertinent skill sets will be positioned to grow profitably. First movers and the most prominent players will define new ecosystem roles, standards, and management.

The future is Open X, and our industry must prepare for a new operational age within a shared-marketplace.

Anirban Bose

Financial Services Strategic Business Unit
CEO & Group Executive Board Member,
Capgemini

Vincent Bastid

Secretary General, Efma

Executive summary

With ecosystem partnerships being recognized and valued, open banking will eventually transition into an Open X phase in which standardized APIs, insights from customer data, and effective collaboration prevail. Open X drives data-use excellence that fosters a seamless exchange of resources, improved experience for customers, and expedited product innovation.

- As the industry moves from unbundling to rebundling of services, open banking mastery may provide valuable short-term operational advantages. However, four fundamental shifts in the industry are altering the FS paradigm:
 1. A move away from products to an emphasis on customer experience
 2. Less importance on assets and more on data
 3. Shared access instead of ownership
 4. Partnering in lieu of building or buying

This new paradigm sets the scene for Open X – and banks need to prepare strategically for the long game versus getting caught up with quick fixes or wins.

- Application programming interfaces (APIs) are set to play a vital role in the Open X environment, and banks that lead API standardization initiatives and look for real monetization value with indirect models (such as referred business and actionable insights) will extract maximum value.
- While some established banks and FinTech firms may not be convinced, Open X is likely to alter the financial services (FS) business spectrum. Moreover, within the new ecosystem banks will not necessarily own the overall customer experience. However, it will be essential that they seamlessly integrate their services as a part of each customer's overall journey and experience.
- With FinTechs struggling to scale up operations and some banks fumbling when it comes to effective FinTech collaboration, structured collaboration offers a pragmatic path forward.
- Banks and FinTechs will need to work cooperatively with other ecosystem players to surmount concerns and obstacles around open architecture adoption and implementation.

The open ecosystem of the future will feature emergent new roles that challenge traditional banking assumptions. Firms will be required to assume a role that aligns with their capabilities and external operating environment.

- Ecosystem players will strategically decide to act primarily as a Supplier, Aggregator, or Orchestrator – and will work to enhance the value in each of these roles by extensively leveraging data science, as well as venturing into non-financial products and services.
- As the financial services industry heads to an Open X ecosystem, established banks may not be suited for the pivotal Orchestrator role. Today's incumbents will likely leverage their primary capabilities to add value as Suppliers and Aggregators.
- While banks look to prepare for specialized roles, they will have to prioritize, enhance, and ensure the robustness of their internal integrated model. By leveraging data and technology, as well as the expertise available within the external ecosystem, traditional firms can modernize and optimize internal processes and systems to enable competitive delivery of relevant services.
- Regulatory activities are driving open initiatives in select geographies and are on course to affect a more extensive geographical footprint in the coming years. Within this dynamic environment, it is imperative for FS players to accurately assess their capabilities and external conditions to develop an Open X strategy with maximum profit potential.

Open banking may become outdated before it ever gets off the ground; long live Open X

An evolving open ecosystem is setting the course for the future

- As banking ecosystem partnerships become more accepted and valued, the industry is rebundling services. While the open banking concept is still emerging, it is at risk of quickly becoming yesterday's news. The next phase is Open X – a shared marketplace in which players leverage data extensively and collaborate with other players to provide customers with a seamless experience. Banks will need to smoothly integrate within the overall customer journey and experience irrespective of whether or not they control the whole process.

APIs are set to play a vital role in open banking and beyond

- Active participation in API standardization initiatives will help banks gain or retain a leadership position in the Open X environment.

Security and compliance concerns as well as unwillingness to collaborate may slow Open X adoption

- As Open X affects the spectrum of financial services business lines, banks and FinTechs will have to leave their comfort zones and work collaboratively to overcome organizational and technological challenges.

Structured collaboration will be key to mitigating the challenges of today (open banking) and tomorrow (Open X)

- FinTech firms struggle to scale up operations; while some banks stumble when it comes to effective FinTech collaboration. Tapping into the collaborative ecosystem of players – while also playing niche and strategic roles – will be keys to surviving and thriving in the Open X world.

An evolving open banking ecosystem is setting the course for the future: Open X

As ecosystem partnerships become more accepted and valued, the industry is rebundling services.

Traditionally, customers turned to banks as their primary provider of bundled financial services. Then, the FinTech era dawned with agile challengers offering quick and convenient targeted services versus a range of financial solutions. This unbundled, often unregulated, approach, was in stark contrast to incumbents' business model of bundled products that allowed consumers to access all possible financial services via a single institution.

Unbundling had implications for established banks as well as for new entrants as each learned they needed more comprehensive strengths to attract and retain business in transformative times. However, relevance came with conditions. Either unilaterally improve capabilities, products and services – or collaborate for win-win outcomes.

Fast forward to today, and the industry is in the midst of a surge in partnerships and collaborations, with banking products and services being rebundled via a platform where users can satisfy a variety of financial needs. The actual provider of any one service seems less critical than banks' control of touchpoints and the overall improvement of customer satisfaction.

As an example, after acquiring its banking license, **Orange Bank** successfully connected to a network of partners to develop capabilities of a full-fledged bank. Orange Bank supports contactless payments through its partnership with Wirecard, Backbase supports its omnichannel banking, Franfinance provides consumer credit services, Djingo (powered by IBM Watson) provides the virtual advisor solution, and Moneythor supplies personal financial management. By connecting to specialized FinTech players and other solution providers at the back end, a telecom player can provide a variety of financial services and control customer touchpoints.^{1, 2, 3, 4, 5}



Participation from FinTechs and rising customer expectations are some of the best things that have happened in the financial industry. They force incumbents to leave their comfort zone, change their business model, culture, and technology architecture, to trigger a digital transformation tsunami."

—Siew Choo Soh

Head of Consumer Banking and Big Data/AI Technology, DBS



We see our partnerships with FinTechs as win-win solutions – they bring to the table technological and human-centered design expertise, agile methods, and a start-up mindset. At the same time, FinTechs benefit from our extensive resources and network of millions of customers, allowing them to scale up quickly."

—Sham Arora

CIO Foundation Services & Technology Strategy, Standard Chartered Bank

¹ *FinTech Futures*, "Wirecard provides paytech to Orange Bank," November 06, 2017, <https://www.bankingtech.com/2017/11/wirecard-provides-paytech-to-orange-bank/>.

² *FinTech Futures*, "Orange Bank turns to IBM Watson for virtual advisor tech," March 07, 2018, <https://www.bankingtech.com/2018/03/orange-bank-turns-to-ibm-watson-for-virtual-advisor-tech/>.

³ *FinTech Futures*, "Moneythor supplies PFM tech to Orange Bank," December 05, 2017, <https://www.bankingtech.com/2017/12/moneythor-supplies-pfm-tech-to-orange-bank/>.

⁴ *Les Echos*, "Orange Bank is betting on free and instantaneous," April 20, 2017, <https://www.lesechos.fr/2017/04/orange-bank-fait-le-pari-de-la-gratuite-et-de-linstantaneite-165847>.

⁵ *Finovate*, "Backbase Omnichannel Banking Powers France's Mobile-Only Orange Bank," November 20, 2017, <https://finovate.com/backbase-omnichannel-banking-powers-frances-mobile-orange-bank/>.

Open banking initiatives from governments and regulators across regions continue to encourage incumbents to treat newcomers as a network of financial solutions providers while facilitating cooperation and transparent data exchange. The result is an evolved banking ecosystem governed by regulators, which is less risky and more convenient for customers. Within this new competitive ecosystem, players, especially banks, must determine the role they want to play to ensure that they can leverage their key strengths and maintain their market leadership (Figure 1).

To remain relevant within the new ecosystem, firms will have to think beyond open banking to a shared-marketplace future.

The days of traditional financial services – of merely providing products – are over. The digital transformation train has left the station, and open banking destinations are gaining global ground. In markets that mandate open banking, there is a push for regulatory compliance. In other markets, banks choose FinTech collaboration to fill a service gap or to bolster their competitiveness.

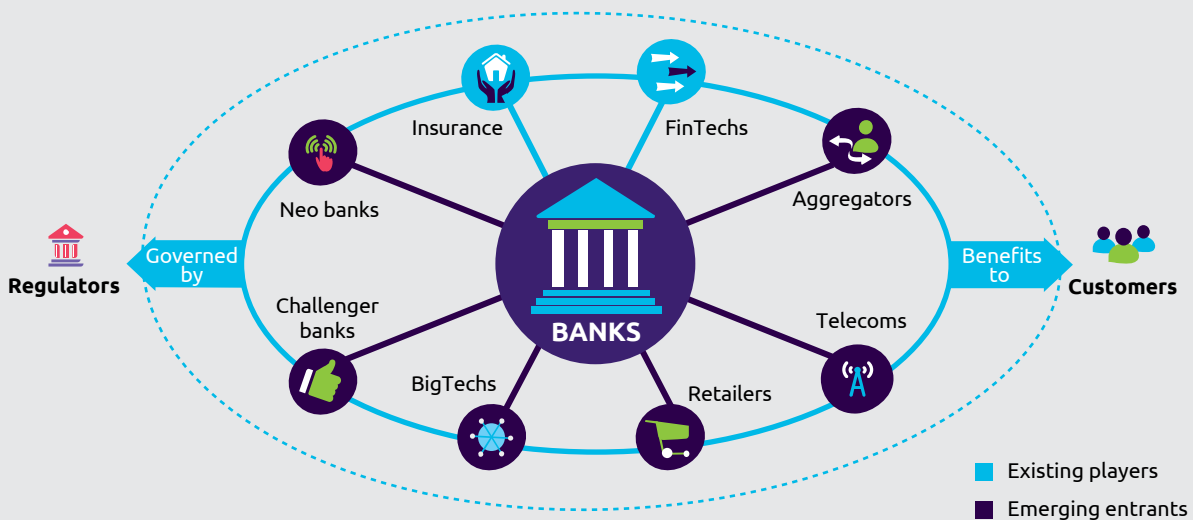
“ The traditional bank must progressively move from a position of 'universal bank' to a position of 'universal partner' to support customers beyond strictly banking products. Indeed, financial services are at the crossroads of customer journeys. This is an orientation towards a more useful but less visible bank. ”

—Laurent Darmon
CEO, La Fabrique by Crédit Agricole

Until now, most banks and FinTech firms have considered open banking to be a technology solution and have not folded it into their business strategy. Yes, open banking mastery provides short-term solutions to yesterday's problems, but more significant opportunities exist.

Open banking never seemed to gain widespread prioritization. However, the shift in business dynamics has led to an environment ripe for Open X.

Figure 1. Evolved banking ecosystem



Source: Capgemini Financial Services Analysis, 2019

Open X reflects a four-pillar shift that values experience over products, sharing over resource ownership, data versus traditional assets, and evolution through partnerships instead of internal build or buy solutions (Figure 2).

1. Focus shifts to customer experience (vs. products)

Now, more than ever, customers seek choices when it comes to how they interact with their bank and use and select financial products and services. Some of the BigTechs have already proved that in addition to the product and services, the mode of delivery is equally important. Talks around customer centricity in the FS industry have taken center stage for a while now, but efforts have focused almost exclusively on improving external customer interfaces to sell existing products rather than real transformation of the whole customer journey.

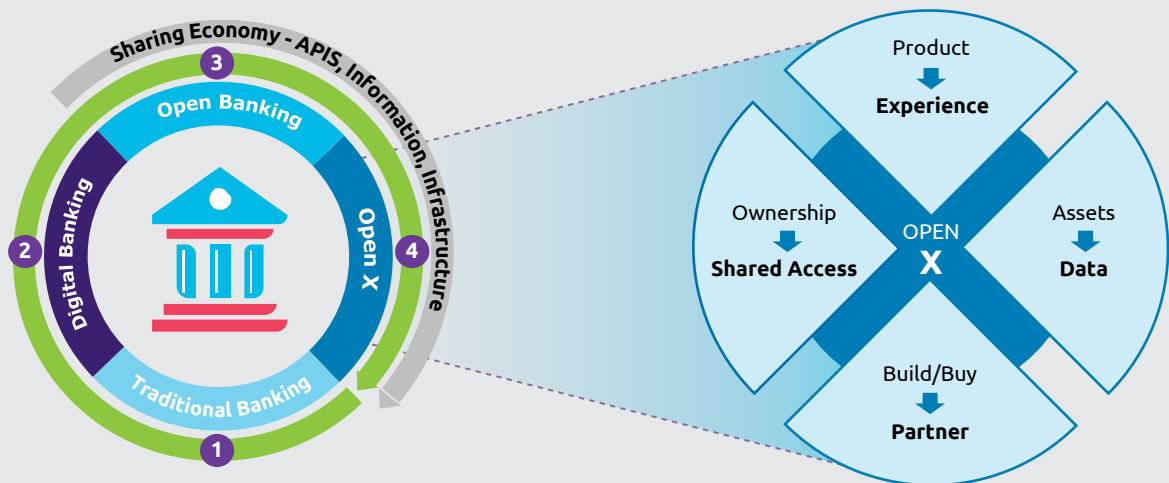
The need of the hour is a consent economy in which customers trust banks with their data and can

revoke permissions easily, while banks can anticipate customer needs. In the new environment, whether the bank be the process owner or a participant in a process such as car or home-buying, it must seamlessly integrate its services as a part of the overall customer journey. The Open X environment will encourage and require firms to provide personalized choices at the individual customer level, higher transparency, and seamless experience rather than just products.

2. Data evolves as a critical asset

A seamless customer experience will be contingent upon banks understanding customers' needs, behaviors, and individual journeys. Social media and emerging technologies have made it easier to access customer data. However, merely holding or storing data is not enough. Instead, data must be used strategically to unlock new revenue, create value, and boost insightful decision making. Netflix assesses stored customer data (browsing history, previously watched shows) as well as current information (time of day and customer click behavior) to personalize content for its ~140 million customers. FinTech and BigTech firms have also started to differentiate themselves through the wise use of data,

Figure 2. Modern banking maturity levels



Source: Capgemini Financial Services Analysis, 2019

- 1. Traditional banking:** Includes core activities such as retail and private banking, corporate banking, and investment banking.
- 2. Digital banking:** Depending on a bank's digital maturity, provides an omnichannel experience for the customers.
- 3. Open banking:** Corresponds to a bank's ability to leverage an ecosystem of third parties and interact with them using technologies such as application programming interfaces (APIs).
- 4. Open X:** Relates to a bank's ability to leverage data and create a shared marketplace by effectively collaborating with FS and non-FS firms, resulting in a seamless experience for the customers.

and the Open X era provides an opportunity for other players to catch up.^{6,7}

Partnerships with experts line the path forward to leveraging emerging technologies and developing proficiency in analytics, data management, and secure data sharing to create customer value. As the full benefits of data are unlocked, banks can differentiate themselves and monetize their most significant asset.



To remain relevant, financial incumbents need to reimagine customer engagement. To do this, the following steps are imperative: migrate to the cloud for agility and scalability, leverage data and AI to understand customer needs better, and transform culture toward that of the startups."

— Siew Choo Soh

Head of Consumer Banking and
Big Data/AI Technology, DBS

3. Firms will partner instead of unilaterally developing, purchasing capabilities

As banks build capabilities to maximize data's potential to transform customer experience in the Open X environment, they will need to continuously innovate (to match new ideas with business needs) and think beyond the obvious. Harnessing the value of data may overwhelm even large banks and many will partner with third-party specialists rather than building or buying services. For example, Audi, BMW, and Daimler have partnered with Here Technologies to integrate navigation technologies in to their cars rather than developing it themselves. The car manufacturers preferred a specialist so that they can focus on their core competencies. In an era of experts and specialization, Open X will enable the ecosystem by accelerating partnerships between banks, FinTech players, and others to deliver value to end customers. Some firms have already begun to partner to enhance customer-facing tasks.⁸

However, in Open X, a variety of ecosystem players – those not necessarily customer facing – can also add significant value. There is no limit to how superior experience may be delivered, and players need not focus exclusively on front-end enhancements. The ecosystem may also be leveraged to augment the operational middle layer and back-end versus internal builds or capital purchases to create a better model. A supportive, broadly-skilled ecosystem offers a hedge against challenges such as data privacy, regulatory hurdles, fraud detection, retention of customer trust, and channel expertise.



Transformation or re-engineering often takes time. Partnering with a FinTech should accelerate the delivery schedule of a new solution, allow for a pivot if a new opportunity emerges, and/or if consumer preferences change. FinTechs and other service providers are able to supplement banks core offerings and enrich traditional products.

— Tara Welkley

Head of Open Banking, Citi FinTech

4. Capabilities and asset ownership give way to shared access

Additionally, ecosystem partnerships will smooth the transition from ownership to a shared economy. In the aftermath of ride-hailing and hotel transformations by game changers Uber and Airbnb, other industries have uncovered shared-economy opportunities. With new sources of revenue in mind, banks and other players are creating or refining offerings that can also be leveraged by others in the ecosystem. As a result, each player must play to their strengths and find a niche where they can be a leader while they leverage offerings from other participants in the customer journey. Success and survival in the Open X environment will be contingent upon a specialized and distinguished value proposition or offering.

⁶ *Wired*, "This is how Netflix's secret recommendation system works," August 18, 2018, <https://www.wired.co.uk/article/netflix-data-personalisation-watching>.

⁷ *CNN Business*, "Netflix adds 9 million paying subscribers, but stock falls," January 18, 2019, <https://edition.cnn.com/2019/01/17/media/netflix-earnings-q4/index.html>.

⁸ *Here*, "<https://www.here.com/strategic-alliances>," accessed in May 2019.



We see disruption in financial services coming from both FinTech and BigTech platforms - (FANG + Alibaba and Tencent). Given this, ANZ is already thinking "beyond open banking." We view the future state of the bank as open data enabled by definition. ANZ envisions "banking as a service" will evolve with emerging digital platforms, that will enable integration irrespective of technology. As all financial services firms reach a level of maturity in their digital offerings – the critical differentiator will be their ability to offer their services directly and indirectly to customers at the right time in the customer journey."

—Ron Spector

Managing Director (New Business Lab and Ventures), ANZ

As the industry moves toward open architecture, traditional firms have focused on tactics and transactions such as monetization of APIs. In Open X, the bigger picture includes the development of business models and strategies.

The question before banks now is not which model to adopt or follow. Instead, a more fundamental conclusion must be drawn around core business propositions. A comprehensive understanding of today's business dynamics is the tone-setting first step in creating proactive initiatives to transform outmoded work processes.

Open X thinking includes far more than new apps and customer-facing experiences. Strategy and transformation take precedence over tactics as first movers and prominent players will define ecosystem roles, standards, and management. Open X will be essential to future survival and success, and banks must equip themselves to prepare for a new era.



When it comes to banking transparency and shaping Open X, APIs will be vital

Active participation in API standardization will help banks retain leadership influence.

Although sharing and leveraging customer data is widespread in the industry, standardized techniques and tools are not commonplace. For example, screen scraping is still one of the most popular techniques to access customer data. However, open APIs are picking up steam and expected to be even more broadly adopted by banks as well as other ecosystem players.⁹

APIs are significant open banking enablers because they allow third-parties – such as FinTechs and developers – to access bank systems and data within a controlled environment. Information sharing drives innovation and, therefore, collaboration between banks and FinTechs drives customer benefits, experience, and satisfaction.

It is no surprise that nearly 89% of banks leverage APIs to collaborate with FinTech firms as part of their business strategy, according to our survey of banking executives. APIs are powering reliable innovation engines and have given incumbents the much-needed agility to launch products faster and improve customer experience.

Citi opened an API portal for developers in 2016 and incorporated Citi FinTech division that uses APIs externally and internally. Since Citi FinTech's launch, its APIs have enabled partnerships with a variety of businesses, including 1-800 Flowers, Best Buy, Honestbee, Lazada, Mastercard, Qantas, Virgin Money, and Wonder.¹⁰

Barclays provides developers with a broad set of APIs to allow authorization management, payments initiation, account and transaction information retrieval, resaving customer card information, sourcing

product details, and checking ATMs and branch locations.¹¹

Online payments processor **Stripe** offers APIs that support more than 135 currencies and let developers integrate payments within their website or apps.¹²

Mobile, tablet, and website payment application **iZettle** provides an API that allows developers to access and integrate its functionality with other applications and to create new applications.¹³

Along with banks and FinTechs, large technology players are also using APIs for integrating or monetizing services. **Google** offers exclusive wallet APIs that enable the integration of Google Wallet services. APIs help to streamline Google purchase flows across mobile apps and websites.¹⁴

Similarly, banks are leveraging **Amazon's** voice-controlled Echo device through APIs to provide a conversational interface.¹⁵

A majority of banks (88%) use APIs to connect their internal systems, according to WFTR 2019 participants. APIs help banks connect internal business units and also support intra-divisional vertical communication.

The pace of external API sharing is accelerating with 66% of banks saying they currently share APIs with trusted partners and nearly 27% planning to share APIs within a year.

As API acceptance expands, ecosystem players must embrace the use of standardized APIs. Otherwise, they may spur tomorrow's problems while seeking to address yesterday's issues. Standardization now will help to reduce fraud, improve interoperability, and increase scalability.

⁹ Finextra, "Open Banking vs. Screen Scraping: looking ahead in 2019," Kelly Read-Parish, January 4, 2019, <https://www.finextra.com/blogposting/16494/open-banking-vs-screen-scraping-looking-ahead-in-2019>.

¹⁰ American Banker, "How Yolande Piazza at Citi FinTech is 'breaking glass'," Penny Crosman, June 22, 2017, <https://www.americanbanker.com/news/how-yolande-piazza-at-citi-fintech-is-breaking-glass>.

¹¹ Altexsoft, "Open Banking and Financial APIs: How to Integrate Your Company with the Digital Financial Ecosystem," November 20, 2018, <https://www.altexsoft.com/blog/engineering/open-banking-and-financial-apis-how-to-integrate-your-company-into-digital-financial-ecosystem/#t6>.

¹² Stripe, <https://stripe.com>, accessed April 9, 2019.

¹³ Izettle, www.izettle.com, accessed April 9, 2019.

¹⁴ Google, <https://developers.google.com/pay/api/>, accessed April 9, 2019.

¹⁵ Amazon, <https://aws.amazon.com/lex/>, accessed April 9, 2019.



Having a standardized protocol which can apply both to our microservices and those of partners and other banks will enable Nordnet to be faster to market and concentrate on building the world's best user experience in savings and investments."

—Rasmus Järborg
Chief Product Officer, Nordnet



In this environment, API standardization within banking will be increasingly important. We welcome partners who share this mindset to join us to create better standardization within the industry."

—Sham Arora
CIO Foundation Services & Technology Strategy, Standard Chartered Bank



APIs are, and will continue to be standardized for two key reasons, improved quality of performance and security; and to better manage, track and coordinate data services for the benefit of the consumer."

—Angie Campos
Global Head of Financial Services, Mulesoft

Unlike payments, a single regulation is unlikely to streamline API guidelines. Requirements are complex, and consistency will take time to achieve. Over time, as more market players adopt a single API standard, the stragglers will follow. Firms or entities that take the lead in defining these standards will have a tremendous first-mover advantage and will avoid further disruption when it comes to transforming their technology to match new standards.

Within the Open X ecosystem, indirect API monetization models via shared resources will enable better value.

Based on their business strategy and objectives, banks and FinTech firms are choosing from among a variety of monetization models (Figure 3).

Direct models (Incremental income is tied to a specific transaction)

- **Revenue sharing:** API provider exposes a digital asset to third parties, and both parties share the generated revenue.
- **API access fee:** A fee-based model wherein specific fees are charged per transaction, per call, or access as part of a subscription.

Indirect models (Additional revenue-creation opportunities)

- **Referred business/sales leads:** An entity expands its distribution channels by integrating with its partners.
- **Brand uplift/product promotion:** Advertisements or associations position a firm's brand.
- **Actionable data from insights:** Collect/share actionable data (such as purchasing decisions, loan needs) or contextual information (risk profiles, future income projections) that can be fed into businesses to drive growth.

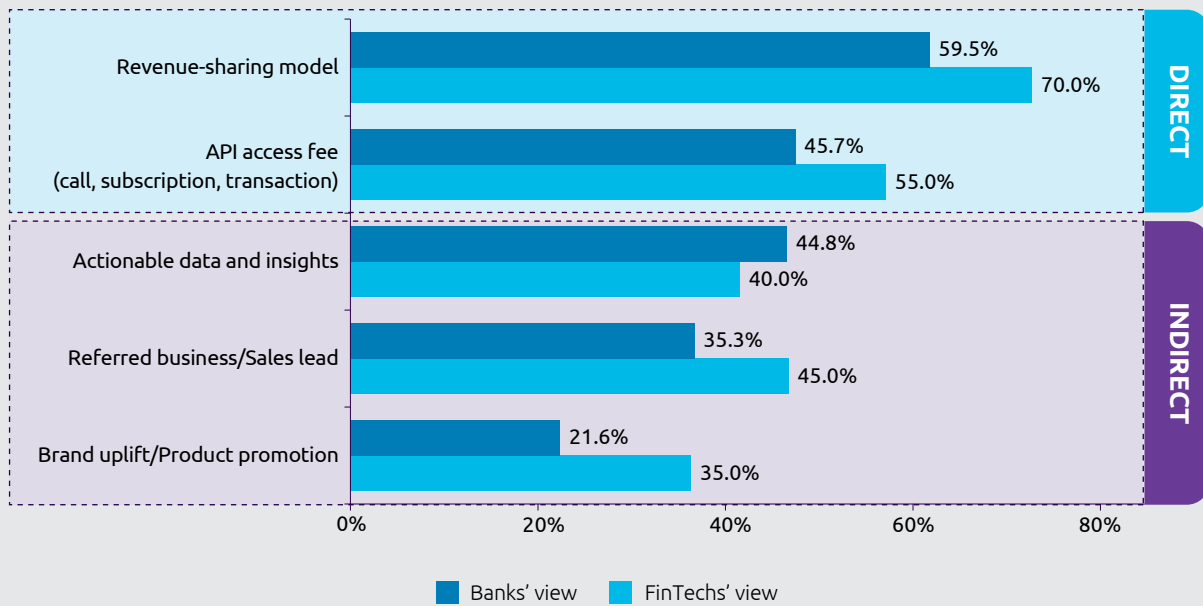
Revenue sharing is the preferred API monetization model because it encourages players to co-create while incentivizing the enterprises owning the APIs as well as the partner ecosystem. The model's revenue-sharing and profit-allocation processes are in flux as banks and FinTechs contribute ongoing improvements.

While direct API monetization models are popular, the real monetization value in Open X lies with indirect models such as referred business and actionable insights that help firms to expand distribution channels and improve customer experience. Firms will be able to increase the level of personalization by prioritizing the relationship for different customers, based on customer value to the bank.

Actionable data will enable firms to target customers by identifying untapped cross-selling opportunities and suggesting next-best actions. Actionable data can be used to delineate underused channels by product, and to expand opportunities for cross- and upselling.

Currently, only about a third of banking executives say they are well equipped to monetize APIs. Therefore, a focus on building capabilities and partnerships will help players capitalize on opportunities in the longer term.

Figure 3. API monetization models – banks' view vs. FinTechs' view (%), 2019



Note: The percentage represents the FinTech and banking executives who have given a rating of 6 or 7 on a scale of 1–7 for each of the API monetization models.

Question: What do you think would be the most feasible model to monetize APIs for your firm?

Source: Capgemini Financial Services Analysis, 2019; 2019 WFTR – Banking and FinTech Executive Interview Survey.



For example, **Starling Bank**, which bills itself as the Amazon of banking, is positioned differently from traditional banks and even some new entrants.¹⁶ Starling's competitive focus revolves around its industry-leading checking account product and its reputation as a go-to destination for those seeking innovative financial solutions and options.

As part of its curated FS marketplace, the London-based challenger bank showcases successful FinTech firms that offer leading-edge products. Participating FinTechs benefit through access to new customers, increased customer interactions, and enhanced customer experience via Starling's interface. FinTechs may also access the bank's open APIs (with customer consent) and can use Starling data to optimize products and customer experience.

Raisin, a pan-European savings and investment marketplace, uses Starling APIs to open accounts, collect deposits, and make transfers to banking

partners.¹⁷ Emma, a financial advocate that helps customers avoid overdrafts, find and cancel subscriptions, track debt, and save money, integrated Starling Bank's API to help users view their finances in one place. Yolt, the smart money app backed by ING, integrated Starling Bank's API in 2017 to allow users to view Starling account details and transactions alongside their other bank accounts. Similarly, third-party provider Moneybox integrated Starling APIs to help customers reimagine their small change. Starling customers can round up their purchases to the nearest cash level and invest the change in companies such as Netflix, Unilever, and Disney. London-based FinTech Tail uses Starling APIs to give its account holders cash-back offers from retailers. Starling card customers can browse through a selection of curated offers that are pre-linked to their bank card, eliminating the need for physical vouchers or coupon codes.¹⁸



Starling's pioneering Banking-as-a-Service offer represents the next step in banking. It enables businesses – including banks and FinTechs as well as retailers, and brands – to develop and scale new customized products, such as savings or current accounts and debit cards, quickly and efficiently without the need for long development lead times and complex legal arrangements.

They can pick and choose individual components, or product features, from Starling. And because they are using Starling's banking license, they do not need to become a regulated entity.

By opening up our APIs, we are part of a new movement – and one of the first real implementations in banking of the platformification model – enabling different businesses to customize their propositions and put their customers at the center of a wider financial ecosystem.”

— **Anne Boden**
CEO, Starling Bank

¹⁶ *The Daily Telegraph*, “Starling is now the Amazon of banking: Come get an account,” October 10, 2018, <https://www.starlingbank.com/docs/Telegraph-article-101018.pdf>.

¹⁷ *Finextra*, “Starling flies into banking-as-a-service space,” August 3, 2018, <https://www.finextra.com/newsarticle/32485/starling-flies-into-banking-as-a-service-space>.

¹⁸ *Starling Bank website*, <https://www.starlingbank.com>, accessed April 2019.

Security concerns and ineffective collaboration may slow Open X adoption

Open environment dynamics, in addition to the potential loss of control and long-time resources, have been significant areas of concern for banks.

The open environment has forced banks, especially in regulatory-driven markets, to give third parties access to data that took years and countless resources to amass. The lack of standards and uncertain regulations are also fueling incumbent apprehension.

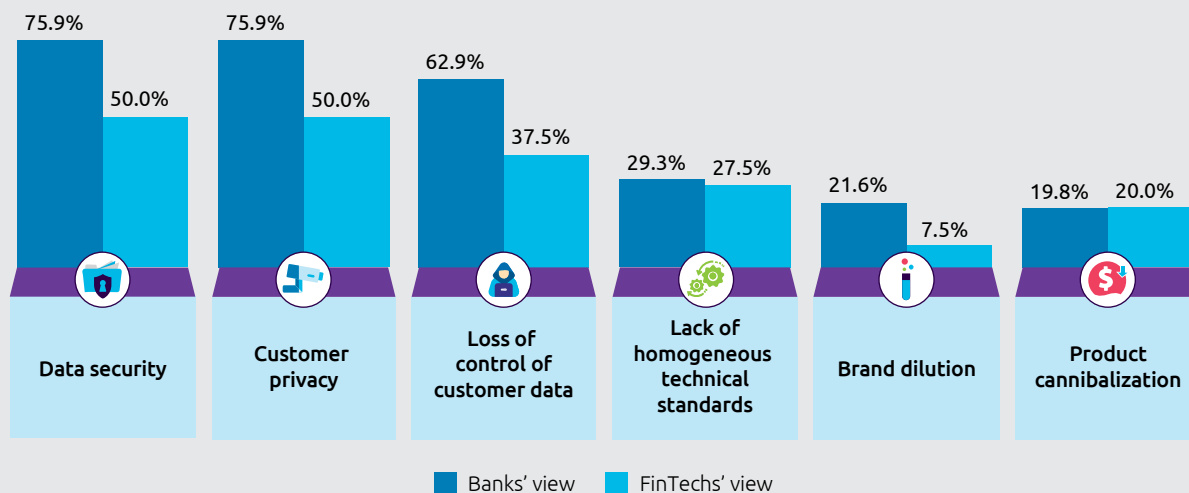
Access to data (74%), fragmented compliance activity (68%), inconsistency in interpretation (61%), and missing identity and trust details (57%) were rated as high areas of concern by the banking executives, regarding Revised Payment Service Directive (PSD2) and General Data Protection Regulation (GDPR) conflict, according to the survey conducted for *World Payments Report 2018*.

FinTech firms were far less concerned with open banking and considered it an opportunity to gain access to critical resources they would struggle to secure independently (Figure 4).

Data security and customer privacy are primary concerns, especially for banks, as a breach could result in massive fines and the loss of customer trust. Weakly-defined or non-existent data protection laws across several geographies justifiably heighten bank concerns. Comparatively, FinTech firms are less concerned with data security and customer privacy, possibly because the stakes for them are not as high.

Stringent GDPR laws in Europe may deter banks from sharing data with third parties as any breach may lead to hefty fines and harm to brand image.¹⁹ The United States loosely defines open banking data protection regulation with banks liable for data breaches during collaborative efforts, which may discourage firms.

Figure 4. Open banking concerns – banks' view vs. FinTechs' view (%), 2019



Note: The percentage represents the FinTech and banking executives who have given a rating of 6 or 7 on a scale of 1–7 for each of the open banking concerns.

Question: What level of concern do your firm have in the following areas when adopting open banking?

Source: Capgemini Financial Services Analysis, 2019; 2019 WFTR – Banking and FinTech Executive Interview Survey.

¹⁹ *Digitalguardian*, "What is the General Data Protection Regulation? Understanding & Complying with GDPR Requirements in 2019," Juliana De Groot, May 15, 2019, <https://digitalguardian.com/blog/what-gdpr-general-data-protection-regulation-understanding-and-complying-gdpr-data-protection/>.

A few competitive concerns (loss of control of customer data and product cannibalization) are related to the risk of market share or customer loss. However, as players realize the importance of open banking, these concerns will fade and gradually fizzle out.

The Open X marketplace will go a step further to demand data sharing and seamless integration of services. Players will have to develop and adopt standardized technologies and overcome security and privacy challenges by working with specialists and regulators. Banks will have to work cooperatively with other ecosystem players to maximize customer data utilization and to stay top of mind of end users throughout their financial journey.

Organizational misalignment is the primary deterrent to open banking today and may continue.

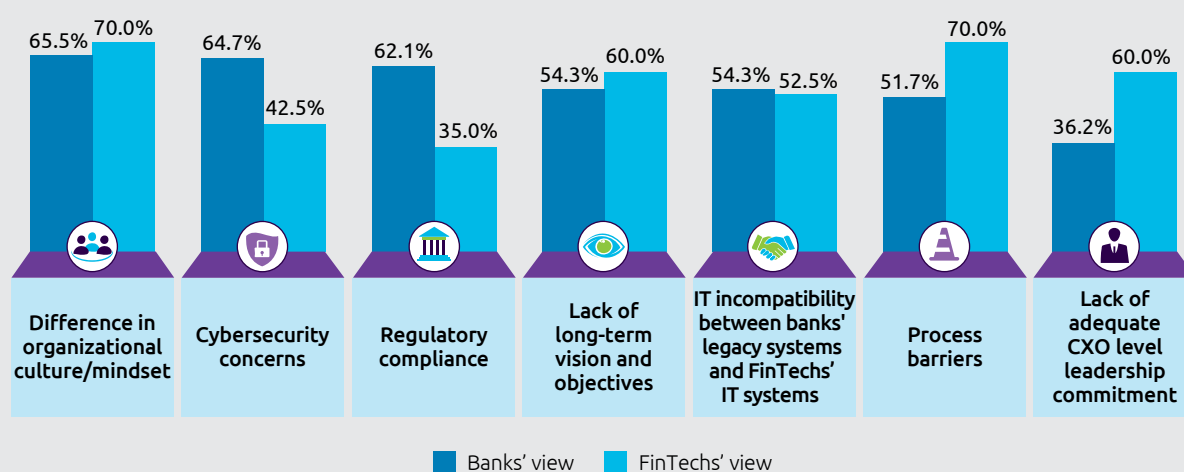
Of *World Fintech Report* 2019 respondents, nearly 66% of banking executives and 70% of FinTech executives considered differing cultural mindsets between their organization and their collaborative partners as a significant hindrance to open banking implementation (Figure 5).

FinTechs work comfortably within an agile and dynamic environment focusing on a handful of objectives for a single business line. In contrast, many established banks work with a legacy structure that is difficult to change; and therefore, may not wholeheartedly embrace collaboration.

“For open banking (or any digital transformation) to succeed, it is less a matter of technology or the ability to collaborate as it is to get out of legacy comfort zones which have been reinforced by continuing profits. Most banks and credit unions executives know what to do and even how to do what needs to be done – the problem is there is no incentive (today) to change. Senior executives who are 55+ years of age are looking towards retirement and see change as a threat. They have had a career of avoiding risk and ‘staying the course’. The steps needed to succeed in the future are much more about leadership and culture than they are about technology and collaboration.”

—Jim Marous
Co-Publisher, The Financial Brand

Figure 5. Challenges for implementing open banking – banks' view vs. FinTechs' view (%), 2019



Note: The percentage represents the FinTech and banking executives who have given a rating of 6 or 7 on a scale of 1–7 for each of the challenges.

Question: In your opinion, what are the major roadblocks and challenges that can hinder an effective collaboration through open banking between banks and FinTechs?

Source: Capgemini Financial Services Analysis, 2019; 2019 WFTR – Banking and FinTech Executive Interview Survey.

FinTechs called out high friction in processes and low CXO-level involvement as additional challenges. Among FinTech executives, 70% cited high process barriers hindering open banking implementation, and 60% mentioned the lack of CXO-level involvement as reasons behind the lackluster implementation of open banking collaborations.

Established banks often support diversified operations and must comply with incongruent regulations across geographies and therefore consider regulatory pressures to be an open banking deterrent. Incumbents also named legacy systems and cybersecurity as implementation concerns. Meanwhile, FinTechs viewed these as the least threatening challenges.

Even though IT system incompatibility was not cited by a more significant number of players as an implementation challenge, more than half of banks and FinTech firms said it would be a hurdle. Indeed, banks can no longer ignore IT system upgrades, and FinTechs will face pressure to develop standardized and secure information access modules.

These challenges will aggravate further in the Open X environment. All ecosystem players will be called upon to embrace change and prepare for Open X. Cultural differences must be considered, and mitigation strategies built. Stakeholders, especially banks, should ensure a smooth but agile collaboration process and select a highly-autonomous dedicated team to hedge

against potentially tepid CXO involvement. In parallel, other players (FinTechs, integrators, etc.) will need to strengthen their understanding of the market/domain to effectively support banks' handling of business challenges (and avoid building a technologically-complex platform that may not be relevant over the long term).

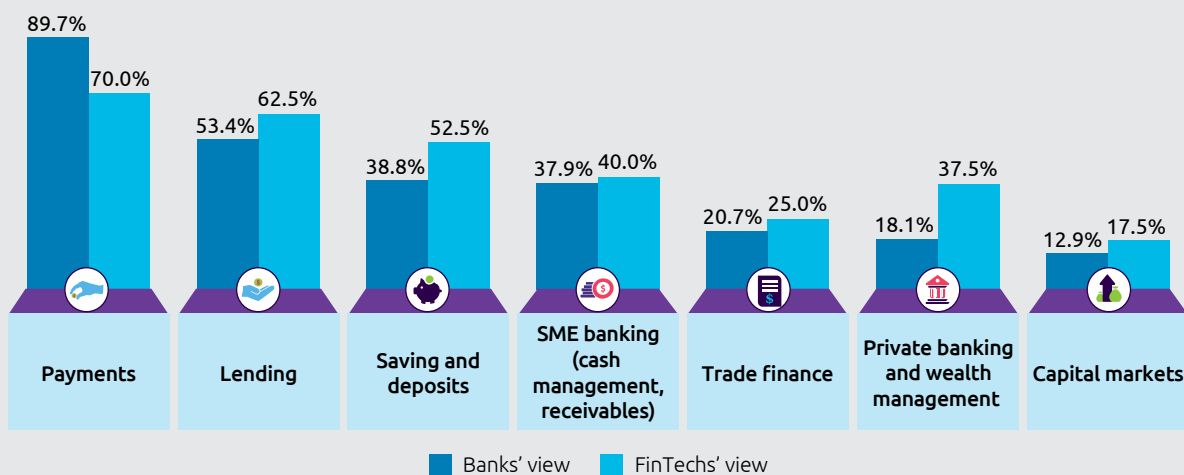
Open X is on course to eventually alter the complete business spectrum – beyond payments.

Banks and FinTech firms believe that open banking and the challenges associated with it will most affect payments. This line of thinking may reflect the PSD2-driven past and the fact that non-traditional players are increasingly dominating the payments domain.

Alipay (which has around 900 million active monthly customers in China) and **WeChat Pay** (a Tencent payment and messaging platform with over a billion customers) exemplify the global future and Open X. **Alibaba** and **Tencent** have seamlessly blended social media, e-commerce, payments, and other finance functions into single apps and user-friendly ecosystems.^{20,21}

FinTech firms believe they have a more significant role to play in lending, and in savings and deposit services (Figure 6). However, within Open X every

Figure 6. Future impact of open banking on core business areas – banks' view vs. FinTechs' view (%), 2019



Note: The percentage represents the FinTech and banking executives who have given a rating of 6 or 7 on a scale of 1–7 for each of the business areas.

Question: Which banking business areas do you feel open banking will impact the most in the future?

Source: Capgemini Financial Services Analysis, 2019; 2019 WFTR – Banking and FinTech Executive Interview Survey.

²⁰ *Raconteur*, "Chinese payment giants are lightyears ahead," Ian Fraser, September 25, 2018, <https://www.raconteur.net/finance/alipay-wechat-china-payments>.

²¹ *GB Times*, <https://gbtimes.com/alipay-now-has-over-900m-active-mobile-payment-users>, accessed May 2019.

domain will have an impact. Non-traditional players such as BigTechs, retailers, and aggregators will play a substantial role in this disruption.

Earlier this year, **Ant Financial** unveiled its Distributed Core Banking Platform (DCBP), a product designed to help financial institutions (FIs) shift their business models from transaction to customer orientation. Ant Financial's BPaaS (Business Platform-as-a-Service) offers FIs product management, asset management, capital verification, and full-link pressure tests on a live service basis.²²

On the other hand, it is unlikely that all non-traditional players will want to venture directly into providing financial services due to stringent regulatory and compliance requirements. Moreover, customers may be uncomfortable sharing their data with non-traditional players (BigTechs and FinTechs) because of trust issues. It will be possible to more precisely evaluate the impact of open architecture once PSD2 comes into force in September 2019 and it becomes clear whether customers are willing to provide consent for accessing their data.²³ In the light of this uncertainty, it makes sense for non-financial players to collaborate with the banks to merge innovative solutions with industry expertise.

Within the Open X ecosystem, banks (especially, mid- and small-tier) will be unable to provide services across all domains effectively and will look to bolster some offerings through collaboration with third-party specialists. With the necessary infrastructure and partnerships in place, banks can also venture into non-financial, value-added services, which will help drive customer engagement and increase customer lifetime value.

Many customers are willing to purchase non-banking services, such as hotel/flight booking (25%), health and wellness (24%), retail purchase (24%), and telecom services (23%), from their bank, according to the *World Retail Banking Report 2018*.

For instance, **HSBC** launched **Jade**, a concierge service for its target clients with investable assets of US\$1 million to US\$5 million, a segment whose needs are not typically well met by private banks. Jade provides clients access to top hotels, restaurants, and exclusive experiences. The program offers a unique blend of personalized wealth management with luxury lifestyle services. Partnering with Ten Lifestyle Group, HSBC offers these 24/7 services in several languages through its digital platform. Jade clients also can access the bank's Easy Invest app, which allows them to trade securities instantaneously, and receive free market information, including real-time quotes, news, and data about three major stock markets (Hong Kong, mainland China, and the United States).^{24,25}

OneAdvisor, the digital home loan solution from Singapore's **OCBC Bank**, is a one-stop property portal designed to provide comprehensive advice for anyone from first-time home buyers to seasoned investors. It was developed around API collaborations between OCBC and various partners to create an end-to-end journey for any home buyer. The bank partnered with real estate sites for listings that users view based on an affordability assessment, which ensures a qualified and practical search. As of October 2018, OneAdvisor reported traffic of more than 110,000 from 53,000 unique visitors and managed to cross-sell home loans.^{26,27}

Therefore, banks may choose to sell non-financial services to customers or provide financial products to non-financial ecosystem players. The bank may not own or orchestrate the customer experience but, maintaining key customer journey touchpoints will be essential.

Many banks and FinTechs remain unprepared for open banking at a time when they should start strategizing for Open X.

FinTechs believe they are better prepared for open banking likely because of their focused priorities and

²² *BankingTech*, "Ant Financial tag teams Hoperun for new core banking product," Henry Vilar, March 9, 2019, <https://www.bankingtech.com/2019/03/ant-financial-tag-teams-hoperun-for-new-core-banking-product/>.

²³ *Finextra*, "Open Banking vs. Screen Scraping: looking ahead in 2019," Kelly Read-Parish, January 9, 2019, <https://www.finextra.com/blogposting/16494/open-banking-vs-screen-scraping-looking-ahead-in-2019/>.

²⁴ *HSBC*, <https://www.us.hsbc.com/jade>, accessed April 2019.

²⁵ *Business Wire*, "HSBC Jade Launches Concierge Service with Innovative Digital Platform to High-Net-Worth Clients," <https://www.businesswire.com/news/home/20180621005335/en/HSBC-Jade-Launches-Concierge-Service-Innovative-Digital>, accessed April 2019.

²⁶ *OCBC website*, "OneAdvisor – Digital Home Buying Platform," <https://www.ocbc.com/personal-banking/one-advisor/index.html?pid=sg>, accessed April 2019.

²⁷ *Singapore Business Review*, "Will big banks' fully digital home loan solutions threaten incumbent proptech players?," October 1, 2018, <https://sbr.com.sg/residential-property/in-focus/will-big-banks-fully-digital-home-loan-solutions-threaten-incumbent-pr>.

strategies. Across parameters, banks' readiness is significantly lower than that of FinTechs' (Figure 7).

With the advent of Open X, the struggle for both banks and FinTechs is going to increase manifold. A daunting challenge faced by both banks and FinTechs is often the struggle to find the right partner for open banking collaboration, which can make product commercialization difficult. Only 26% of surveyed bank

executives and 43% of FinTech executives say they have identified the right partner.

While they may be better funded, established banks allocate proportionately less to open banking initiatives than their FinTech counterparts. Steep regulatory capital requirements combined with low prioritization for open banking initiatives have led to inadequate open banking budget allocations for 74% of incumbent banks.

Talent recruitment also hinders bank preparedness. Finding talent that possesses collaborative capabilities as well as open banking expertise has been difficult for incumbent banks.

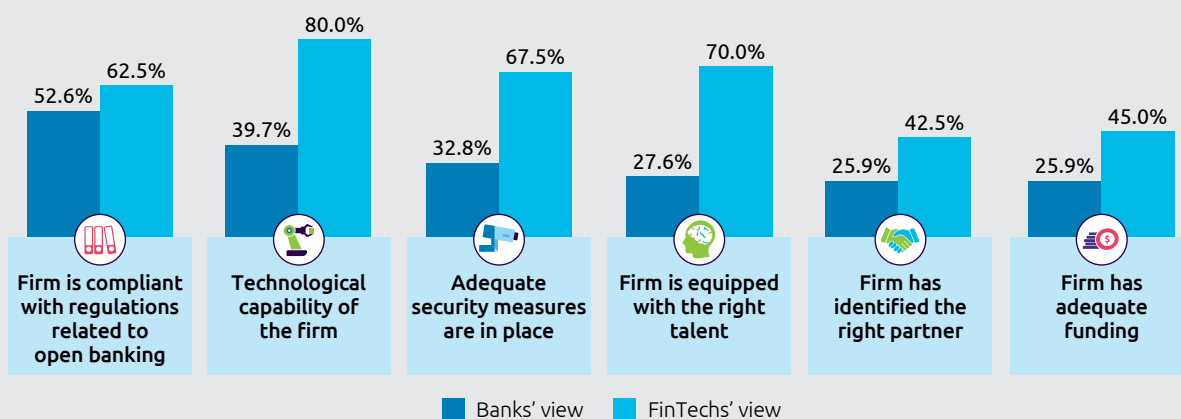
Advanced technological capacity prepares FinTech firms to take on security measures, but they must also work around legacy bank systems until upgrades are in place.

Many collaborations fail because participants cannot identify a partner to match their business requirements. The ability to find the right partner and talent and to address technology capability gaps may require specialized third-party support.

“Being able to onboard fintech partners quickly is an essential competitive advantage – the more efficiently a big company can do this, the faster they can bring pioneering products to market.”

—Niall Cameron
Global Head of Corporate and Institutional Digital, HSBC

Figure 7. Preparedness level of open banking – banks' view vs. FinTechs' view, 2019



Note: The percentage represents the FinTech and banking executives who have given a rating of 6 or 7 on a scale of 1–7 for each of the criteria.

Question: What is the preparedness level of your firm with regards to open banking implementation?

Source: Capgemini Financial Services Analysis, 2019; 2019 WFTR – Banking and FinTech Executive Interview Survey.

Structured collaboration will help to mitigate the challenges of open banking and Open X

FinTech firms struggle to scale up operations; while some banks stumble when it comes to effective FinTech collaboration.

The relationship between banks and FinTechs has shifted from competition to collaboration. However, both have struggled to work together and scale up innovation efficiently.

To maximize efficiency, established banks and FinTechs should consider four pillars before embarking on a partnership: People, Finance, Business, and Technology (Figure 8).

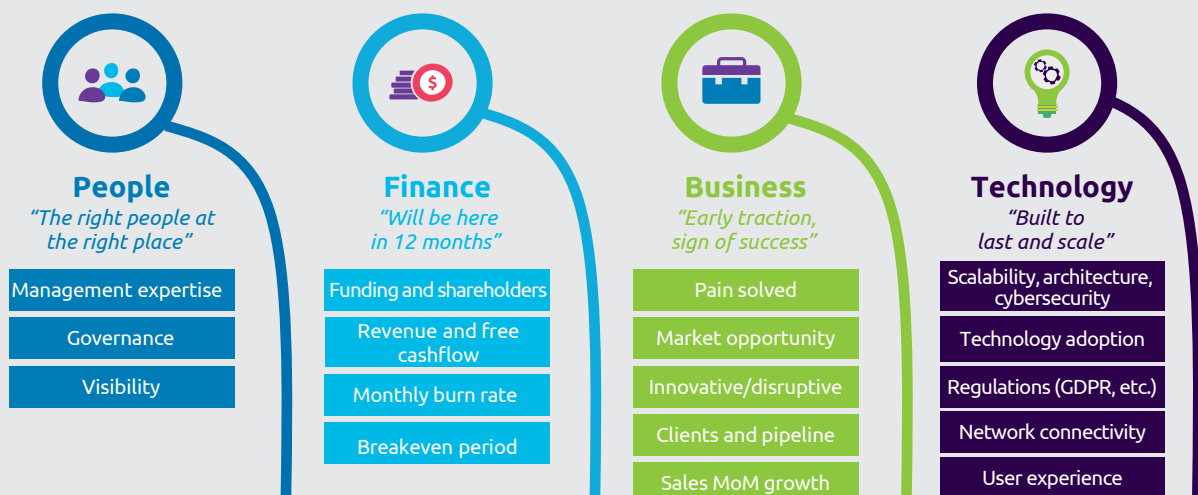
People (Right people in the appropriate positions): Staff is the most important resource in a services firm. Having the right team members in the right roles to drive innovation, growth, expansion, and

successful collaboration is the formula for success. The most successful collaborative groups have a mix of employees with strong business acumen and those with deep technical expertise. For collaboration to be productive, both partnering entities must be flexible and strive for a middle ground between a hierarchical bank and a horizontally-managed startup.

Finance (Allocate optimal capital, expect truthful returns): Without a defined investment and revenue model, it may be difficult to articulate a compelling value proposition. Participants need adequate capital to invest in the partnership and a proven revenue-generating model to maintain positive cash flow in the not-too-distant future.

Business (Early traction, measurable success): Business traction and a proven business model, customer adoption, and value creation comprise the foundation of any potential collaboration.

Figure 8. The four pillars of effective collaboration



Source: Capgemini Financial Services Analysis, 2019.

Any new business model should solve unmet business needs and challenges that were difficult to resolve independently. The collaborative partnership should produce a value proposition with quantifiable results.

Technology (Collaboration tools and technologies): Technology tools should be secure and enable frictionless collaboration, as well as scalability. Partner systems should securely integrate with the help of technology. Accessed information must be accurate, timely, and regulatory compliant. It should be scalable without affecting current systems.

“*The key challenge that most banks face is enabling the integration of ecosystem partners and getting the value of the product or service into the hands of bankers and customers. Most banks do not have the people, processes, and technology to support the rapid integration and deployment of new things to their staff and customers. ANZ has established ANZi to develop new digital platforms that can support ecosystem partnerships.”*

—Ron Spector
 Managing Director (New Business Lab and Ventures), ANZi

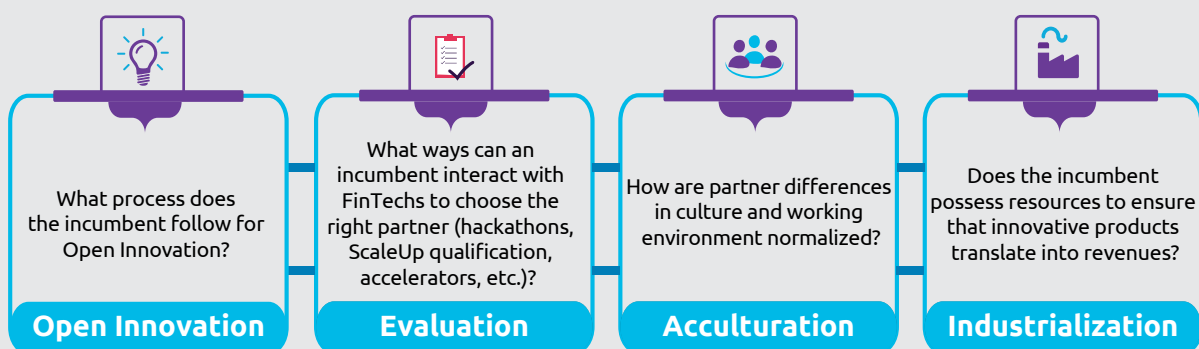
Capgemini’s 360-degree ScaleUp Qualification process may be used to vet a growing tech firm’s potential for successful partnership.²⁸ It ensures the FinTech’s ability to collaborate and integrate easily with a traditional bank to add value and enhance customer experience.

All participants — including established banks — should be prepared to collaborate across the people, technology, business, and finance pillars.

Incumbents can self-check to test their readiness within Open Innovation, Evaluation, Acculturation, and Industrialization phases (Figure 9).

Capgemini is developing a Collaboration Readiness Index to help traditional banks quantitatively analyze their relative position compared with in-region peers that offer similar products and services. As they identify their competitive strengths and weaknesses, incumbents can focus on developmental areas that require improvement to support collaboration effectively.

Figure 9. Capgemini Collaboration Readiness Index



Source: Capgemini Financial Services Analysis, 2019.

²⁸ A ScaleUp is a growing tech firm that has raised more than US\$1 million, has retained full-time executive management, and has generated significant business revenue.

Future state – Banking ecosystem players break tradition, adopt new roles

Specialized roles emerge and challenge traditional conventions as the financial services industry begins its transition towards Open X

- With an eye on maximizing customer value, entities will be required to identify their most significant strengths strategically so that they can adopt a best-fit role (Supplier, Aggregator, or Orchestrator) within the new financial services ecosystem.
- Within these new roles, firms will optimize customer value by extensively utilizing data science and may venture into non-financial products as well.
- As the financial services industry heads to an Open X ecosystem, most traditional banks may not be best suited for the pivotal Orchestrator role. Many of today's incumbents will likely leverage their primary capabilities to add value as Suppliers or Aggregators.
- Banks should prioritize the enhancement of their integrated (traditional) model and internal capabilities to address today's open banking challenges and begin preparation for Open X.

Regulations and stakeholder activities will determine maturity in the open banking and Open X world

- As firms craft future strategies, in addition to addressing their internal capabilities, they must also consider the external operating environment.
- Within markets where regulators or stakeholders push this open environment, collaboration is critical to future success. In markets where open banking is in the early stages of adoption, savvy ecosystem partners can compete for primary-player dominance.

Specialized roles emerge and challenge traditional conventions as the financial services industry begins its transition towards Open X

The evolving FS ecosystem provides new product creation and distribution opportunities that may be developed in-house or in partnership with external players.

As Open X makes its way into the industry, new specialist roles are developing. Apart from the familiar, integrated business roles in traditional banking, new roles are emerging – Supplier, Aggregator, and Orchestrator. These roles are not business-model exclusive, but business-case specific. Each ecosystem entity may mix and match roles depending on the business model in play (Figure 10).

- **Integrated:** The traditional role in which a firm maintains full control of product and service creation – as well as distribution. Within Open X, an integrated firm may struggle to match competitors' time to market and agility to quickly meet customers' unique demands.

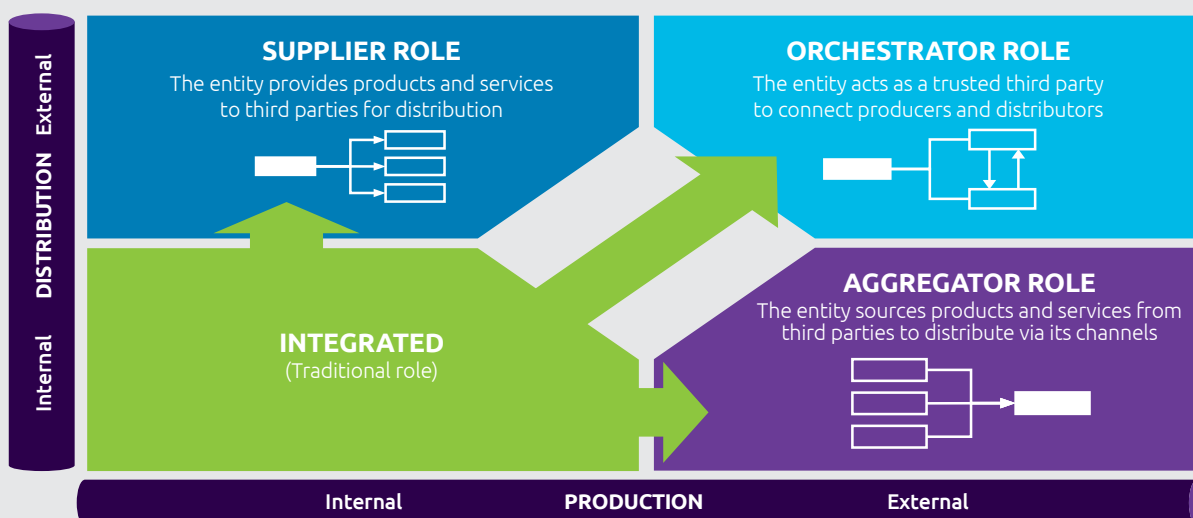
- **Supplier:** In this role, the entity focuses on developing products and services, leaving distribution to a third-party or external player.
- **Aggregator:** In this role, the firm delegates product and service creation to a third party or external players but uses its internal channels for distribution.
- **Orchestrator:** This central entity coalesces ecosystem partners by connecting and coordinating their interactions to create the most value. This role links Suppliers and Aggregators and orchestrates their interactions.



Open banking is an alternative to resist the "Uberisation" observed in other sectors. It's a way to enrich the legacy model with external innovation for the benefit of customers while exposing a bank's services to those that own client interactions."

—Laurent Darmon
CEO, La Fabrique by Crédit Agricole

Figure 10. Open banking business roles



Source: Capgemini Financial Services Analysis, 2019.

Suppliers provide assets, data, products, and services to be distributed or used by external partners.

As owners of the workflow process, suppliers enable external access to distributors, that, in turn, sell the products to their customers.

The supplier role is often adopted by firms that possess strong production capabilities and a variety of unique products, but lack extensive customer reach or a robust distribution network. This role allows the firm to target larger customer bases by leveraging external networks to boost the distribution potential of their FS offerings (Figure 11).

Several banks have already assumed a supplier role and are finding ways to unlock new revenue streams, access new distribution channels, and white label their products. However, most firms are not strategically using their existing customer data to develop new offerings. There is little doubt that the journey from open banking to Open X will require more than a narrow focus on providing more personalized and relevant products.

Moving forward, FS industry players will adopt data orientation to leverage insights from customer data. Data insights and data science are soon to become quintessential product development tools.

In the Open X era, FS will go beyond assets and products to include Know Your Customer (KYC) assistance, identity management, external accounting services, collateral management, custodian asset

management, and data value-added services. Moreover, traditional portfolios will expand to include a variety of complementary non-financial services.

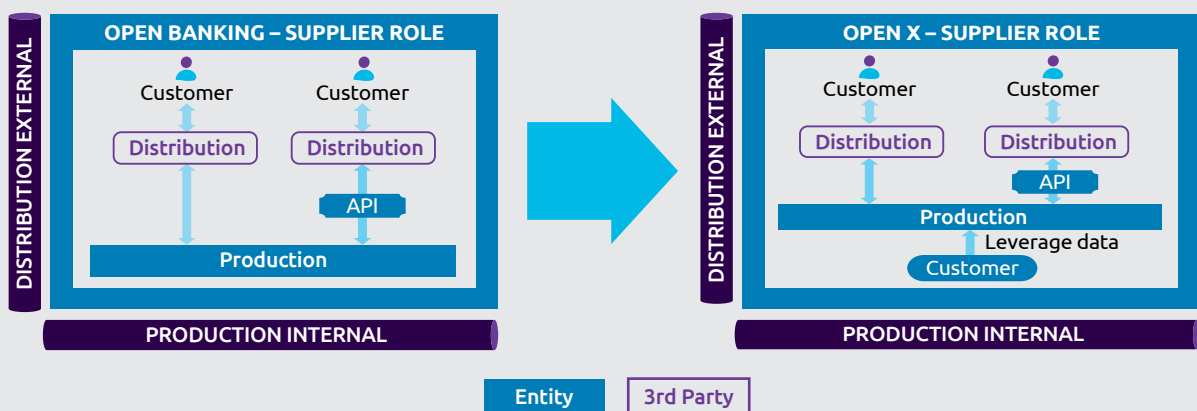
Firms may also consider providing infrastructure as a service so that external players can use banking infrastructure to flexibly construct scalable banking solutions for their customers.

For example, Tencent’s **WeBank**, China’s first internet-only bank, acts as a supplier by offering payment services to smaller banks that can’t afford to build real-time payment services. Thus, the smaller bank takes advantage of WeBank’s services to retain payments customers without having to invest in and create a product.²⁹

“Banks have core competence in risk assessment, credit provision, KYC, verification services. As we break down our value chain into components, we can offer these services more visibly in the market to those with strong distribution but insufficient DNA in what we do every day.”

—Emma Gray
Chief Data Officer,
Australia and New Zealand Banking Limited (ANZ)

Figure 11. Supplier role – open banking vs. Open X



Source: Capgemini Financial Services Analysis, 2019.

²⁹ Finextra, “6 Strategies for Building a Platform Bank,” June 4, 2018, <https://www.finextra.com/blogs/fullblog.aspx?blogid=15420>.

Supplier success will require acumen in specific production capabilities.

- The firm should make itself universally accessible to many distributors and to various channels to ensure seamless distribution. It should use standard APIs to enable smooth integration with external players – modular and easy to onboard, plug in, and unplug.
- Supplier firms need high technological expertise and staff resources skilled in product creation, innovation, and building core banking services. Data mining and data science proficiency are necessary to productize internally generated data. In time, the firm must develop a clear strategy around data monetization models.
- From inception, a mechanism for customer permission and consent management will be required to access customer data within regulatory parameters.
- Product commercialization should include clearly defined service components.
- Other necessary capabilities may include developer portals and customer service.

Suppliers generate revenue by selling their offerings as well as monetization of APIs – API calls, transaction fees, and revenue-sharing methods. However, they also can spur new revenue streams by leveraging actionable customer data and insights.

As external players handle distribution, the suppliers may lose control of data and customer-facing applications. Although customer acquisition costs will be lower for suppliers, long-time customer relationships may be lost.

Aggregators amass products and services from ecosystem partners or external players for distribution to customers.

Firms best suited for an aggregator role possess an extensive distribution network and access to a network of suppliers that produce unique and innovative products.

Within an aggregator role, a firm will act as a marketplace and seek to attract many services to serve a broad audience. As long as the liability structure is clear, the firm has an incentive to onboard many different institutions. Because their capital requirements are somewhat low, aggregators can offer suppliers a fast route to market.

For example, **Banco Santander** has reinvigorated its online Openbank by integrating with **Moneybox** so that customers may round up their purchases to the nearest dollar and invest spare pennies. Moneybox customers eagerly pushed for Santander integration.³⁰ Santander also integrated robo-advisory FinTech, **Scalable Capital**, into Openbank so customers can create goal-based investment portfolios to meet personal savings objectives and choose from a range of risk-based strategies.³¹

As the industry moves from open banking to Open X, aggregators will be challenged to perfect the role. The most successful aggregators will act as more than an intermediary and product distributor. Their ability to deftly access data and convert it into value will spur targeted distribution capabilities. Moreover, they will provide personalized product recommendations for individuals and customer segments, as well as for small and medium businesses (SMBs), based on details such as cash flow and liquidity needs (Figure 12).



We will benefit from the rich array of services that small players will dream up that can be offered to our customers through our distribution platforms."

—Emma Gray

Chief Data Officer,
Australia and New Zealand Banking
Limited (ANZ)

Aggregators need not restrict themselves to FS products and services because non-financial products may add substantial value to the customer benefit mix.

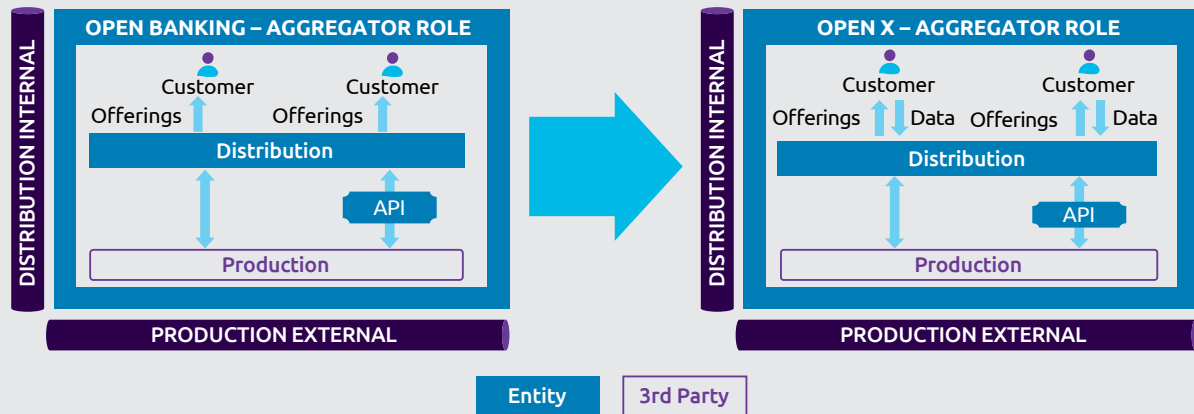
Successfully positioned aggregators will demonstrate excellent distribution capabilities or prime access to niche market segments.

- The firm should have high technological capabilities in product distribution, with access to a vast subscriber (or niche subscriber) base and control a variety of channels.

³⁰ *Altfi*, "Santander unveils first Open Banking integration with savings app Moneybox," Ryan Weeks, August 2, 2018, http://www.altfi.com/article/4632_santander-unveils-first-open-banking-integration-with-savings-app-moneybox.

³¹ *Finextra*, "Santander dives deeper into digital with Openbank," September 27, 2018, <https://www.finextra.com/newsarticle/32707/santander-dives-deeper-into-digital-with-openbank>.

Figure 12. Aggregator role – open banking vs. Open X



Source: Capgemini Financial Services Analysis, 2019.

- Aggregators must be able to provide a superior customer experience. Staff resources require expertise in sales, marketing, and distribution.
- Aggregator firms need a robust partnership strategy as well as universal accessibility to – and seamless integration with – many suppliers via standardized APIs.
- Aggregators must be able to harness data and provide value-added services. They will need to deploy a consent mechanism for compliant customer data utilization.

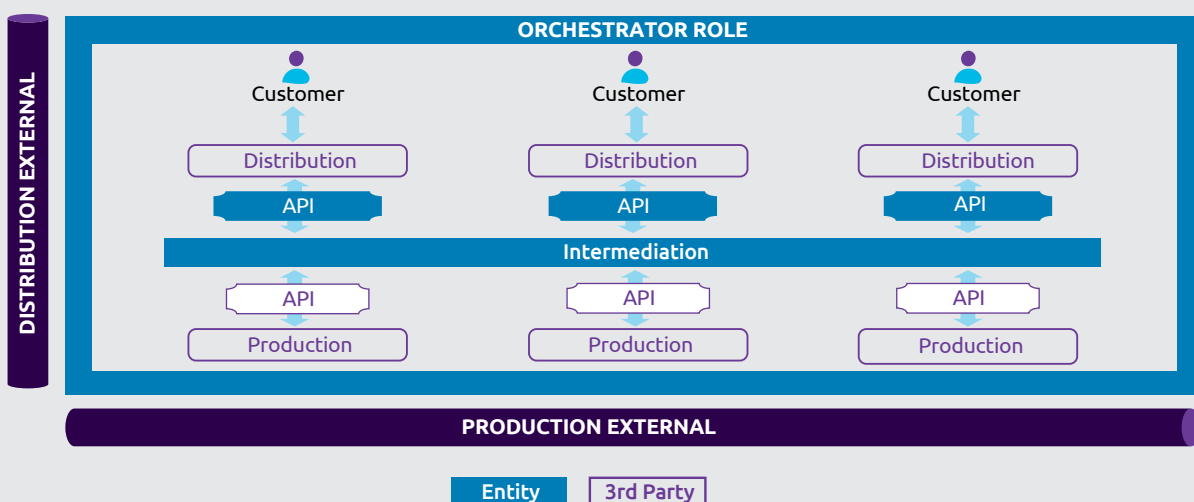
Aggregators will manage customer relationships and control customer data and customer-facing applications.

Orchestrators coalesce the ecosystem by connecting and coordinating partner interactions to create the most value.

Orchestrator firms help suppliers and aggregators successfully interact to produce customer value. Revenue will be comparatively lower per transaction, but contribution margins and volumes may be high (Figure 13).

Orchestrators act as a middleman or go-between, so their success and revenue depend on several interactions. The role requires capabilities in access management, interaction management, and data management. Orchestrators enable suppliers to

Figure 13. Orchestrator Role



Source: Capgemini Financial Services Analysis, 2019.

push new content on the platform and help them identify clients interested in the service. Successful orchestrators will have access to aggregators with beneficial distribution channels. They also will demonstrate the ability to curate, rank and match players, and provide recommendations on products and services based on user data, history, or needs.

For example, London-based FinTech **Bud** acts as an orchestrator that works with consumers, banks, and FinTechs to help end users find the most suitable financial products. Bud provides the tech layer that intelligently connects bank account data to third-party financial services (including those offered by FinTechs and traditional financial firms) while also using bank data to create new consumer experiences.³²



I think FinTech orchestration has been a big benefit in the global markets business."

—Patrick Mang

Head of Global Markets Innovation, HSBC

Indeed, the orchestrator role can be lucrative, but traditional banks may find it challenging to become a pure-play intermediary. Incumbents forced to promote their products alongside those of competitors may face conflicts of interest or cannibalization. As regulatory scope continues to grow, the fine line between promoting products versus product and sales neutrality may come under increased scrutiny, putting banks at risk.³³

Banks forced to build functionalities outside their core capabilities may end up competing with firms that are orchestrators by design – such as BigTechs, that are prepared to offer both individual and collaborative ecosystem excellence. Internal resistance may arise when it comes to selecting competitive product suppliers or sharing customer-base data. Furthermore, because so many established banks rely on legacy infrastructure, the flexibility required by the orchestrator role may be too long a stretch.



Big Techs are and will continue to play a role in the orchestration of the financial services industry, especially within a FinTech perspective. However, there are some core compliance and traditional banking and institutional controls that Big Techs do not control, nor do they own the platform or the core services consumers want."

—Angie Campos

Global Head of Financial Services,
Mulesoft

Although traditional banks may not be pure-play orchestrator candidates, they can build functionalities and connect and coordinate products and services that don't cannibalize their own. Banks can offer customers value-added services by leveraging complementary or supplementary FS solutions or non-FS solutions provided by FinTech firms and third parties.



I'm a big believer in focusing on what you do best and partnering for everything else."

—Rasmus Järborg

Chief Product Officer, Nordnet

For example, both **HSBC's Connections Hub** and **BBVA's Open Marketplace** orchestrate/manage an ecosystem of FinTechs and businesses. Their platforms play matchmaker based on an interdependence of requirements (that alleviates product cannibalization) so that two players may work together virtually. And because the participating businesses are existing clients of each bank, customer experience and lifetime value are boosted.^{34, 35}

³² *Techcrunch*, "Bud raises \$20M to connect banks to FinTechs and other financial service providers," Steve O'Hear, January 2019, <https://techcrunch.com/2019/02/03/bud-raises-20m-to-connect-banks-to-fintechs-and-other-financial-service-providers/>.

³³ Pure-play orchestrators offer similar competing products and services (possibly including their own) from several players without supplier bias.

³⁴ *Finextra*, "6 Strategies for Building a Platform Bank," June 4, 2018, <https://www.finextra.com/blogs/fullblog.aspx?blogid=15420>.

³⁵ *BBVA* announcement, "BBVA unveils a match-making platform for fintech startups," September 24, 2018, <https://www.bbva.com/en/bbva-unveils-a-match-making-platform-for-fintech-startups>.

As the industry heads toward Open X, the orchestrator role is positioned to be critical. Although traditional banks may not manage the new ecosystem, they can adapt and participate in it profitably. Orchestrators will be dependent upon excellent suppliers and aggregators – roles that banks can effectively fill if they transform internally and collaborate with third parties to maximize their competitive advantages.



Unfortunately, most financial institutions will never be in a position to be innovation leaders because of their legacy cultures. They will rely on fintech firms and solution providers to take the innovation risks and deliver 'packaged' products to the financial institutions. In the end, this will most likely relegate most financial institutions to being deposit warehouses and funds providers with firms like PayPal, LendingTree, Acorns, Amazon, Google and much more tech-savvy firms stealing the customer relationship."

— **Jim Marous**
Co-Publisher, The Financial Brand

Banks should prioritize the enhancement of their integrated model and internal capabilities to tackle today's open banking challenges and prepare for Open X.

The integrated systems of many traditional banks have become unwieldy because of multifaceted business functions, sparse maintenance, and general neglect. However, if banks assess their integrated model and analyze where value might be unlocked, they can successfully grow without venturing into new services. To take part in today's opportunities, banks must first pragmatically clean house by leveraging data, technology, and the ecosystem to modernize and optimize their systems and processes. An approach supported by collaboration with FinTechs and market experts will improve functioning processes as well as those that still lag.

Banks need a clearly-defined digital strategy and a sustained commitment to transformation. Preparation begins with the implementation of robust core banking systems that are quick and available 24/7

based on interactions and interactivity. Banks will have to go beyond agile IT transformation to empowering a culture of agility, speed, and productivity which will reduce costs and time to market while bolstering customer satisfaction.

Each platform component must work independently and plug in or unplug easily. As banks become more open and connected, the security of data at rest and in motion must be prioritized. A safe and secure environment will be a crucial enabler when it comes to retaining the core trust that established banks have earned.

As an example, several banking players have benefitted from **Suntec's** Xelerate Digital Core solution. This Digital Core acts as a digital layer between core back-office systems, customer touchpoints, and external partner ecosystem which enables a client to gradually phase out complexities such as revenue leakage and regulatory hurdles. The solution drives personalized interactions at all digital touchpoints by building intelligence into the bank's engagement systems. Thus, banking clients can plug in solutions and build on its strengths without overhauling existing core.^{36,37}

Used independently or in tandem with FinTech partners, technologies such as machine learning, artificial intelligence, and blockchain will increasingly become useful in improving efficiency, fostering innovation, and boosting the quality of production and distribution. Banks can rationalize portfolios by adding new products and eliminating less popular offerings. Multiple products can be offered at the customer-engagement layer with less at the core banking layer, which will enable firms to keep product maintenance costs low while growing the customer base. Providing or aggregating products and services may be vital to maximizing efficiency.

The focus should not be past-generation products, but on leveraging data that helps to drive customer value, provide integrated services, and enable data and insights-driven decision making. Data analytics can identify bottlenecks and disconnected systems to save time, money, and resources. Data can also help banks determine optimum marketing channels and targets, helping them maintain relevance without intrusiveness.

Within the Open X ecosystem, banks will be required to identify and build their role as a supplier or aggregator starting with acknowledgment and acceptance that the transition from a product mindset and control-oriented pipeline model to a customer-centric, collaborative model (within the constraints of the regulatory and competitive landscape) may be a strategic challenge.

³⁶ Suntec Group, <https://www.suntecgroup.com/digital-core/>, accessed May 2, 2019.

³⁷ Suntec Group, <https://www.suntecgroup.com/resources/case-studies/>, accessed May 13, 2019.

Regulations and stakeholder activities will influence open banking maturity

Aside from internal capabilities, banks will need to develop their future strategies based on current market scenarios.

Open banking adoption in any region is driven primarily by regulations, competition, collaboration, demography, and acceptance by consumers and players. Regulations, particularly, have been an essential enabler in driving open banking adoption and they will play a similar role in pushing Open X initiatives.

Clearly defined regulations support an environment favorable for ecosystem growth and provide guidelines for best practices. In scenarios where regulators are less active, the push for open banking is market-driven.

Three scenarios emerge based on regulatory and player activity.

1. Regulated open banking: In these markets, regulators mandate open banking, so there is a significant push for quick adoption. Prominent players will surge to meet open banking compliance requirements. But, as banks meet minimum regulatory requirements, adoption rates may decelerate. In these markets, strategically progressive large banks will think beyond mandated regulations and compliance. Meanwhile, small regional banks can leverage their local customer reach advantage to act as aggregators for large banks. A few markets that demonstrate this scenario are Australia, Hong Kong, the UK, and a select European Union countries.

In the UK, the Competition and Markets Authority (CMA) established Open Banking Implementation Entity (OBIE) to create software standards and industry guidelines for open banking.³⁸ The CMA has also asked the top nine UK banks to open up their data.³⁹

Meanwhile, the PSD2 and the GDPR (established to govern third-party access to customer information and data privacy) are being adopted across Europe.⁴⁰

Australia has mandated open banking and asked its four leading banks to open data to third-party providers by 2020.⁴¹

2. Supervised open banking: In these markets, open banking has not yet been mandated by regulators although player guidelines are in place. For many banks, legacy systems will act as a gate to open banking adoption. A few early adopters will start opening up. Some may even try to orchestrate an ecosystem of non-competing products, and new players will rush to compete with early adopters. Various many-to-many partnerships will exist in this scenario, and several competing offerings developed. Small regional banks can compete on products and channels with large banks and can focus on building a portfolio as there is no immediate pressure to collaborate. This market scenario exists in Brazil, Mexico, and Singapore. While Singapore has provided guidelines, it has not imposed regulations on its leading banks. Driven by market adoption, numerous Singapore banks (including DBS) have opened their APIs.⁴²

Last year, Mexico launched a FinTech Law focused on cultivating an open banking standard that considers financial inclusion and creates and invests in products that benefit all citizens.⁴³

In South America, Banco Central do Brasil is preparing an open banking model for launch this year that gives consumers ownership of their data. Brazil also has approved the General Data Protection Law, expected to go into effect in 2020.⁴⁴

³⁸ *Business Insider*, "UK Financial Institutions will receive more clarity on Open Banking," Lea Nonninger, February 05, 2019, <https://www.businessinsider.com/uk-financial-institutions-open-banking-guidelines-2019-2?IR=T/>.

³⁹ *Finextra*, "Open Banking year one: Insights from the CMA9 and more," January 11, 2019, <https://www.finextra.com/newsarticle/33194/open-banking-year-one-insights-from-the-cma9-and-more/>.

⁴⁰ *Mondaq*, "European Union: PSD2: Legal Issues In Open Banking (And GDPR!)," Giangiacomo Olivi, March 6, 2019, <http://www.mondaq.com/uk/x/786086/Financial+Services/PSD2+Legal+Issues+In+Open+Banking+And+GDPR>.

⁴¹ *Finder*, "Open Banking in Australia," Elizabeth Barry, February 13, 2019, <https://www.finder.com.au/open-banking>.

⁴² *FintechNews*, "Open Banking In Asia – A Breakdown of Initiatives Across The Region," Vincent Fong, October 9, 2018, <http://fintechnews.sg/24627/fintech/open-banking-in-asia>.

⁴³ *Instantor*, "The Mexico Case: Open Banking," Claudia Del Pozo, Sarah Kok, December 17, 2018, <https://blog.instantor.com/building-on-the-shoulders-of-giants-and-pushing-boundaries>.

⁴⁴ *IAPP*, "The new Brazilian General Data Protection Law — a detailed analysis," Renato Leite Monteiro, August 15, 2018, <https://iapp.org/news/a/the-new-brazilian-general-data-protection-law-a-detailed-analysis>.

3. Market-driven open banking: In these markets, regulators offer basic open banking guidelines or none at all. Unbanked and underbanked customer segments and the emergence of a robust FinTech community are enthusiastically encouraging the adoption of open banking. Subsequently, numerous growth opportunities exist for players.

Banks and FinTechs openly share data for slow, but steady, growth. Large banks in these markets become aggregators and collaborate with FinTechs to bring innovative offerings to their existing customers. Small regional banks become suppliers and work with FinTechs to take their products to larger and underbanked customer segments. China, India, and the United States exemplify this market scenario.

In India, the Unified Payments Interface (UPI) – a peer-to-peer payments scheme that bypasses intermediaries – has been widely adopted.⁴⁵

In China, FinTech giants such as Ant Financial and Tencent are leveraging open APIs to allow third parties to offer services to their customers and make data more portable within their ecosystems.⁴⁶

In the United States, the Consumer Financial Protection Bureau (CFPB) outlined principles in 2017 to encourage competition, promote financial inclusion and protect consumers, but the major push comes from the players in the market.⁴⁷

⁴⁵ Finextra, "The World of Open Banking, Brendan Jones," March 12, 2018, <https://www.finextra.com/blogposting/15130/the-world-of-open-banking>.

⁴⁶ FRBSF, "Asia's Open Banking Push," Sean Creehan and Cindy Li, December 5, 2018, <https://www.frbsf.org/banking/asia-program/pacific-exchange-blog/asias-open-banking-push>.

⁴⁷ Consumer Finance, "CFPB Outlines Principles For Consumer-Authorized Financial Data Sharing and Aggregation," October 18, 2017, <https://www.consumerfinance.gov/about-us/newsroom/cfpb-outlines-principles-consumer-authorized-financial-data-sharing-and-aggregation>.



Closing thoughts

Although nascent, the new ecosystem is quickly evolving. Players will need to collaborate to address and overcome uncertainties and ambiguity around process standardization, regulations, and entity roles.

The emerging open banking ecosystem, invariably to be followed by Open X, provides a broad range of new opportunities. While a few players have taken initial steps forward, many are oblivious to potential threats and opportunities. It is imperative that players choose the right partners and talent to thrive in the new ecosystem.

FinTechs and established firms will need well-defined open banking and Open X roadmaps. The following strategic questions may help to unlock maximum value:

- What are the firm's core strengths? With whom will the firm collaborate to support non-core areas? Does portfolio expansion make strategic sense?
- What role does the firm see itself playing in the future ecosystem?
- Within the new ecosystem, which new revenue streams does the firm want to target? Which API monetization models can feasibly provide maximum benefit given their business strategy?
- What return on investment (ROI) does the firm expect from its new ecosystem initiatives?
- Does the firm have the required technology/technical capability to capitalize on open banking and Open X opportunities? What about agility to respond quickly to market variations?
- Is the firm prepared to tackle regulatory compliance and cyber security challenges?
- Does the firm have the expertise to find the right partner and the cultural compatibility for collaboration in the ecosystem?
- How does the firm plan to scale up to effectively leverage changing industry dynamics?

Methodology

WFTR 2019 Survey—Capgemini and Efma

A global survey encompassing responses from 116 traditional financial services firms and 40 FinTech firms including banking and lending, payments and transfers, and investment management forms the basis of the World FinTech Report 2019.

Questions sought to yield perspectives from both FinTech and traditional financial services firms – exploring the emergence of open banking in the financial services industry. It sheds light on the impact the new ecosystem will have on all the stakeholders, the challenges and concerns that firms will face, and the emergence of new businesses and monetization models in this space.

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