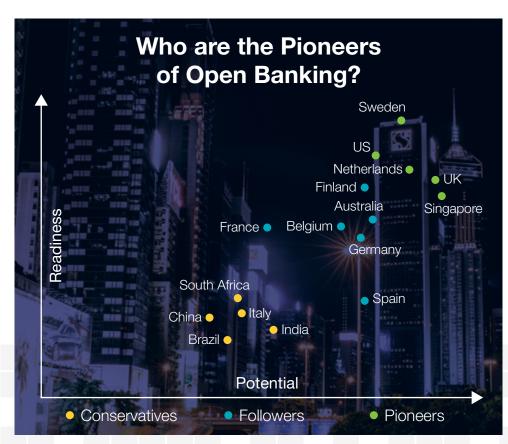


OPEN BANKINGGLOBAL PHENOMENON



Source Capgemini Financial Services Analysis, 2018

Open Banking is a pathway to products and services that enable customers – consumers and SMEs – to get a better deal, make finance more transparent and helps them get the most out of their money.

Open Banking is a global movement, but there are certain countries and regions that are pioneering the shift. Two of the key pioneers are Sweden and the UK. In the near future, India is expected to move from Conservative to a Follower, while Finland and Germany are expected to shift further towards being Pioneers.

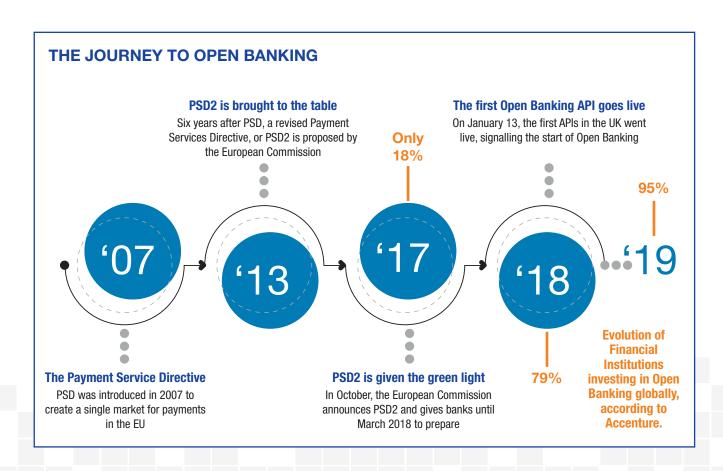
At its heart, Open Banking is designed to bring more competition and innovation to the Financial Services industry. This may sound daunting, but banks embracing this new challenge have an opportunity to enhance customer experience and shift focus to become more **consumer-centric**, rather than bank-centric.

Open Banking is secure and provides a safe space for users to connect their accounts via third parties in an encrypted environment. In the UK, all companies that are enrolled in Open Banking are FCA regulated. Once explicit consent has been given by the consumer, they are redirected to their own Financial Institution's login page to approve access for a specified time period (e.g. 1 day; 30 days; 90 days etc.).

OPEN BANKING WHAT IS IT?

In its simplest form, Open Banking provides a framework for Financial Institutions to safely and securely share data – more specifically, their customers' data – with third parties. This includes, but is not limited to, Fintechs and other banks.

In some regions, adoption has been made mandatory. For example, in the European Union, the PSD2 (Revised Payment Service Directive) legislation that was introduced in early 2018 requires banks to provide third parties with access to their data. A year on, the adoption of Open Banking is ramping up, with more consumers being exposed or introduced every day to the concept and solutions enabled by Open Banking. Applications from Fintechs such as Tink and Yolt are empowering consumers through a variety of products, including Personal Finance Management (PFM), Account Aggregation and Transaction Categorisation.



OPEN BANKING WHAT IS IT? [continued]

Despite Open Banking being around for a while – announced in October 2017, and introduced in January 2018 – it is still very much unknown to a large proportion of the public. As operations and investment increase, it will undoubtedly not stay this way for long.

But the path isn't all rosy. Banks are concerned about what the future of Open Banking means for them, and how to keep up with agile and ambitious Fintech companies entering the arena. For consumers, there are concerns around security and the risk of fraud. Lastly, as with any new financial innovation, the potential threat of malicious parties who may attempt to take advantage of the relatively new world of Open Banking and uninformed customers may be concerning to some.



"OPEN BANKING AIMS TO ENCOURAGE BETTER SERVICES AND MORE INNOVATION"

Nationwide

OPEN BANKING THE BASICS

For third-parties in the European Union, to be fully authorised through PSD2 to use the Open Banking APIs a financial service provider must register as either an AISP or a PISP.

AISP - Account Information Service Provider

Companies authorised to access an individual or SME's account data from their financial institutions with their explicit consent. Companies registered as AISPs have the ability to 'read-only'. AISPs may provide apps for budgeting, money management and price comparison.

PISP – Payment Initiation Service Provider

Companies authorised to initiate payments into or out of a user's account. Rather than only viewing data on an account, PISPs are authorised to make payments on behalf of a customer. Companies registered as PISPs have the ability to 'read and write'. PISPs may provide apps and services that enable consumers to pay directly from their bank account.

Other types of service providers include **ASPSP** (Account Servicing Payment Service Provider), or **CBPII** (Card Based Payment Instrument Issuer).

Currently, there are three key areas emerging for Open Banking. All of them take advantage of the connectivity and access enabled by open APIs. These are **Financial Products, Payments** and **Money Management**.

"OPEN BANKING IS THE SECURE WAY TO GIVE PROVIDERS ACCESS TO YOUR FINANCIAL INFORMATION."

Open Banking UK





Payments



OPEN BANKINGFINANCIAL PRODUCTS

FINANCIAL PRODUCTS

When taking out a loan, typically the process requires the applicant to provide details of their income and expenditure so that affordability can be assessed – particularly for bigger loans and mortgages. Traditionally, during the application process a bank or lender will request six-to-twelve months' worth of paper bank statements.

Instead, Open Banking allows users to quickly authorise and securely connect their accounts to the service provider (an AISP). This is as easy as logging in with your bank credentials and granting one-time permission to a loan aggregator who can pull your data to provide real-time, accurate quotes.

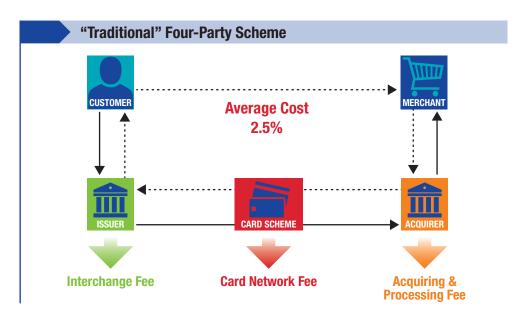


OPEN BANKING PAYMENT INITIATION

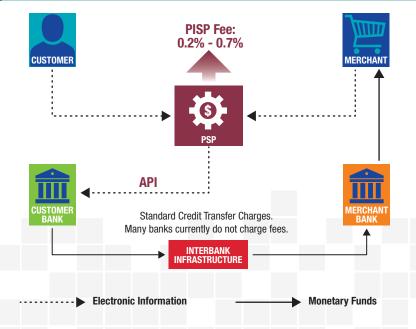
PAYMENT INITIATION

Another innovation made possible with Open Banking is the capability to initiate payment through the Interbank Infrastructure. Usually, banks don't charge for this type of transfer – so the only cost is the fee to the Third Party that initiates the transfer, which typically might be between 0.2% and 0.7%. It means potentially lower costs for the Merchants, who currently can pay more than 2.5% for each card transaction.

For many it may sound daunting, but there are in fact good reasons to enable a PISP to initiate payments on the consumers behalf. Take, for example, a Finance Management application: with access to a person's bank accounts, it can alert them when they are close to their overdraft and, with their permission, can seamlessly move funds between accounts to prevent incurring charges. Similarly, it could transfer funds to achieve an optimal return on a person's savings.







OPEN BANKING PFM (PERSONAL FINANCE MANAGERS)

MONEY MANAGEMENT

It's been around since the dawn of time. Keeping track of finances, receivables and expenditures is an important and necessary fact of modern life and best practice.

Since the birth of the first personal computer and the very first spreadsheet program, through applications like Microsoft Money and Quicken, and countless smartphone apps, personal finance management has been available. All these solutions have had their strengths (many still do), levels of sophistication, ease of use, but also in some cases, a lack of.

Certainly, money management has been an important aspect of our personal tech usage. Now, with the advent of Open Banking, a new breed of applications is emerging – such as Yolt, a money manager from ING bank. Others include Cleo, Emma, Tink and YNAB.

Far from perfect, this first iteration of Open Banking financial management apps provides a taste of what is to come, and as Al, advanced algorithms and machine learning progress, so will these tools and services.



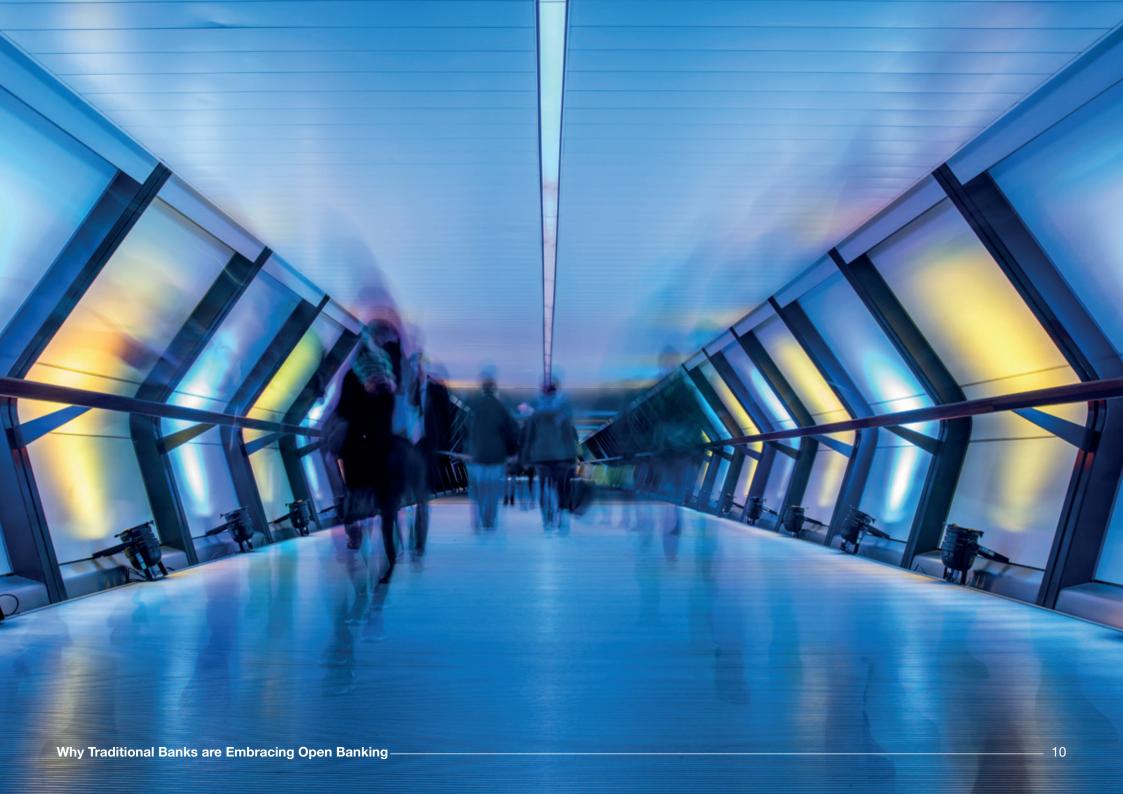
BRIDGING THE (EXPANDING) GAP CUSTOMER EXPECTATIONS

Technology and its rate of change is incredible. Year after year, new products and services are changing the way people interact with others, and the things that surround them. The financial industry is not alone when it comes to disruption. Technology has impacted the retail industry, the entertainment industry, and the service industry. It wasn't long ago when Steve Jobs' idea of storing 1,000 songs in your pocket seemed revolutionary - and now having 30 million tracks available to stream instantly on Spotify seems, well, normal. We can even ask our own personal assistant, Alexa, to play our favourite playlist without even having to lift a finger.

The level of experience that is expected by consumers is ever-increasing, and not just in financial. Expectations have shifted across a range of industries, from entertainment to retail. Banks have done a tremendous job in building the fundamental services that customers need: Security, Fund Management, and Core Banking Services. Looking ahead, these areas will likely remain their firm foundations, but more additional services are likely necessary to remain competitive.

Today there is a growing gap – The Expectation Gap – between the fundamental services and the full experience consumers are seeking. In the past, consumers were restricted to what was available and offerings were segmented by provider. In other words, it was complex and difficult to use the offerings of multiple banks. Some may offer a better interest rate, others may have free perks with their accounts, like device insurance. Fintechs have seen this as an opportunity to fit themselves in between banks and consumers. Open Banking has propelled this forward further and Fintechs can now offer secure, reliable and trustworthy experiences in areas of **Personalisation, Convenience, Relevance** and **Frictionless Integration**.



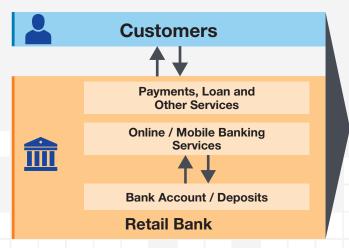


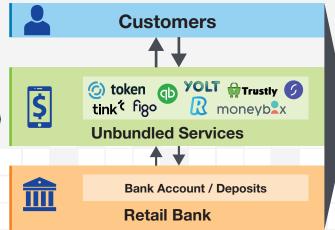
MEETING CUSTOMER EXPECTATIONS

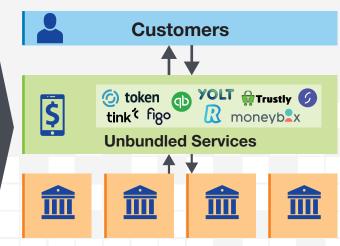
Historically, banks have operated within a "walled garden". They managed accounts and deposits, and layered various products and services on top – these services range from online services, profitable payment services, loans and other financial products. With Open Banking, these products and services can be unbundled, and Fintechs can insert themselves in to the value chain with relative ease.

Fintechs in this arena typically specialise in one or two functional areas. The narrow scope of these companies enables them to focus and refine their technology, processes and services without the restrictions of legacy systems that most banks have. This agility and simplicity has given them an upper hand that many banks struggle to replicate. Furthermore, their products are designed and optimised for the mobile-first, "me-first" world. Once the services have been unbundled (via an app), additional banks can be connected, enabling seamless aggregation of information from multiple financial institutions.

As Fintechs steadily increase their role as a link between customers and their banks, the original primary goals of Open Banking start to become reality. The barriers to choosing and switching disappear. In turn, this means more choice, more competition, lower costs, better value and a better experience for consumers.



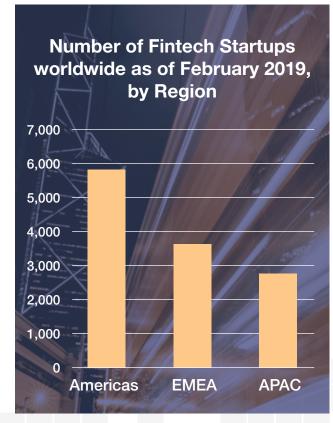




IS OPEN BANKING A THREAT TO BANKS?

With the introduction of Open Banking, banks in some regions are now required to open up new communication gateways that give Third Party Providers (TPPs) access to their customers' account details. Open APIs make it much easier for customers of traditional banks to transfer money between their accounts, manage payments, and conduct transactions through other banks and nonbanks.

The Open Banking system is designed to **give consumers more control** over their financial information and access to a wider range of products and services. The number of companies in the financial technology (Fintech) sector worldwide has grown exponentially. Figures published by Statista in February 2019, estimate there are 5,779 Fintech start-ups in the Americas, 3,583 in EMEA and 2,849 in Asia Pacific. In total, more than 12,200 companies willing to take a piece of the pie from the traditional financial institutions.



Source Statista, 2019

IS OPEN BANKING A THREAT TO BANKS? [continued]

In the Americas and EMEA, **more than 50,000 branches** have closed over the last 5 years, and a further 30,000 are expected to close in the next 5 years according to latest RBR report published in January 2019. After the financial crisis, a rationalization of the branch networks took place. Financial Institutions focused on profitable branches while maintaining ongoing investments in digital banking, including a reshuffle of employees.

Traditional banks are currently facing big challenges and changes. One of those is Open Banking.

Looking ahead, as more consumers become equipped with the knowledge and information about Fintechs, including Open Banking and Digital Banking, traditional banks face the challenge of their customers switching more frequently for better deals, moving their money into more lucrative savings and interest paying accounts and even refinancing the most valuable of products – their mortgages – with other players offering more favourable rates and terms.



TOP-OF-MIND BANKING'S NEXT BIG REVOLUTION

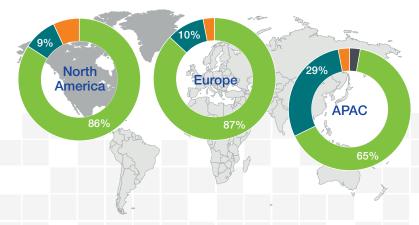
Open Banking is often described as the "Next Big Revolution in Banking". It's a top-of-mind issue for many of the world's banks, who are making considerable investments in the technology. A report by Accenture revealed that close to 80% of banks had already made major investments in Open Banking by the end of 2018, and almost all those who haven't, plan to do so in the next three years. In particular the number will rise to 95% during 2019.

This is the case for all regions in the world. With PSD2 and the CMA mandating Open Banking in Europe, it is no surprise that Europe is leading the way, but this is also true in North America, where several large banks have been busy securing data-sharing deals and principles between themselves and other individual partners. In Canada, the Department of Finance set up an advisory committee in September 2018 and has now launched an open banking consultation to invite organisations and individuals to share their opinions on the prospect, while in Mexico, the government is developing a plan similar to that in the UK.

In Asia Pacific, Fintechs are experiencing phenomenal growth driven by Open APIs and Australia will officially launch Open Banking later in 2019.

Major Open Banking Investments Already invested Will invest in 2019 Will invest in 2020 Will invest in 2021 Will consider later Source Accenture, 2018





BANKS ARE STILL IN CHARGE NOT FINTECHS

The world of banking is changing. In the Old World, the bank was at the centre. Customers went to the bank, and they went at the bank's convenience. Weekdays only. Without question, the branch was the main channel, and customers queued up in very imposing banking halls, waiting patiently to be called forward.

But banks began to innovate, and differentiate themselves in part, at least – by offering other ways in which customers could access their accounts through different channels. They started to offer online banking, and later on with the arrival of the smartphone, they were also able to offer truly mobile banking.

Over the last decade, mobile usage has grown, and is now taking centre stage. As 'anywhere, anytime' products and services became mainstream, we have become a "me-first" society, and consumer expectations have changed to reflect this. Banks are responding and in this New World, the customer is at the centre – smartphone in hand. Now, banks must go to the customer if they want their business – not the other way round.

And in the Experience Economy, in a world of digital and mobile services where everything can be copied – or even bettered – in a matter of weeks, it's in the other areas of a bank's ecosystem that provides some of the best means of competitive differentiation.

Whilst Fintech startups and challenger banks are disrupting the industry, at the moment they struggle to replicate some of the **key strengths of banks: trust, customer base, and the physical interaction.** These are areas where established banks shine and can leverage their advantage. Putting their long-standing reputations alongside new technologies allows them to not only be a competitor in the world of Open Banking, but also successful.

Old World



- Bank-centric
- Customer goes to bank
- ► Branch is primary channel
- Channels provide differentiation

New World



- Customer-centric
- Bank goes to customer
- Smartphone is primary channel
- Branches provide differentiation

BANKS HAVE CHOICES

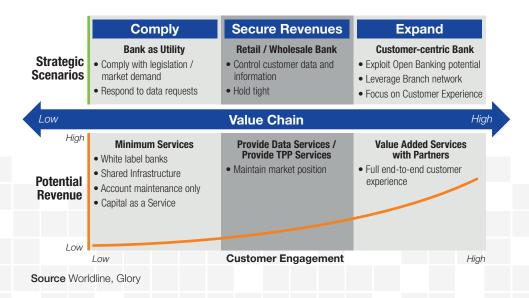
Banks have a choice. Embrace Open Banking, or don't. For those that do decide to embrace Open Banking – there are a multitude of options. Open Banking offers a wide range of opportunities and capabilities, and banks must decide where to focus first. Where do they want to sit in the Value Chain, how much do they want to invest, and what role do they want to take?

At one end of the Value Chain, one option is to comply with legislation and market demand, and become a 'Bank as Utility'. This approach requires a minimal level of compliance and functionality to hold and manage accounts as well as handle data requests from other providers who manage the day-to-day customer relationships.

Moving up through the value chain, we can see strategies that are, in effect, to hold tight. Remain as a Retail or Wholesale Bank with a similar level of customer relationship to that which they have today.

And at the other end of the value chain, there are the financial institutions who choose to adopt an expansion strategy. These are the companies looking to invest in becoming Customer-Centric Banks by exploiting and embracing Open Banking on top of the advantages that their existing branch networks and trusted eco-system already offer.

It then becomes a consideration of how much a bank wishes to engage with their customers. Some may focus on providing infrastructure, white label solutions or "capital-as-a-service". Others may choose to create a full end-to-end customer experience which has the highest potential revenue. According to Motista and The Financial Brand report (July 2017), highly engaged and emotionally connected customers can be up to six times more valuable to a financial institution, which can equate to more than fifty thousand dollars in revenue per customer over their lifetime.



OPEN BANKING ISN'T CLOSING BANKS

IT'S CHANGING THEM

It is clear that Open Banking is not bad news for banks – quite the opposite. No question, it brings a lot of associated costs, liabilities and risks to the table. However, these are either mandated or demanded by the market, and therefore can be recognised as a cost of business.

When it comes to the threats to their business, it is up to the banks to choose their approach. Fintechs and third party providers will continue to fill the Expectation Gap, but banks can also take the initiative and fill it themselves.

Open APIs arguably give the banks an equal, if not better chance to offer innovative products and services. They already have trusted relationships, along with established, rich ecosystems – and customer inertia – on their side.

Open Banking is not killing the branch, but as an enabling technology it allows banks to provide new levels of service. As customer expectations change, customer experience is shifting from important to imperative.

Face to face interaction at the branch is a clear strength for traditional financial institutions to compete with the new Fintechs and, with access to both physical and digital channels, gives traditional banks an upper hand in building trust and customer loyalty.

Strengths

- ► Trusted advisor relationships integrate with branch operations
- ► Existing full financial eco-system that can be extended with APIs
- Extend API functionality beyond minimum requirements
- ▶ New channel to offer products and services
- ► Access to sophisticated consumer platforms

Opportunities



Weaknesses

- Banks burden all the costs of maintaining accounts
- Liability (fraud, security, etc) passed to bank
- ► Fintech startups able to "cherry pick" most profitable activities
- ► Loss of Fees
- ► Loss of customer "ownership" and insight

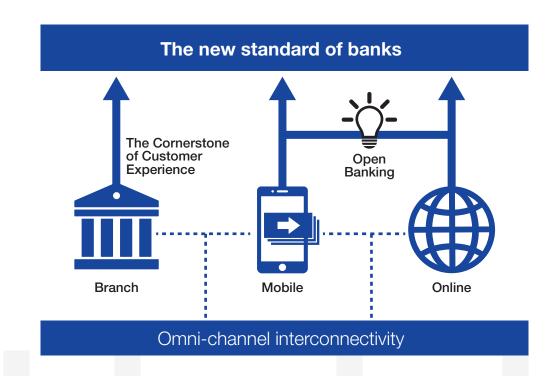
Threats

A CONSUMER-CENTRIC EXPERIENCE FOR THE NEW-WORLD BANKS

Globally, most banks are investing time and money into Open Banking. Evidently, the technology is top of mind and many are exploring how to improve their customers' journeys within a new eco-system. In a time where the industry is undergoing a revolution that is changing the way customers interact both physically and digitally, banks are rethinking the branch to focus on delivering a strong presence that harnesses the consumercentric mindsets.

As the administrative roles of banks shifts away from the branch and into other channels, undoubtedly a rethink and redesign of physical spaces will result. Open Banking further facilitates the drive and empowerment of consumer-centric strategies, but that doesn't mean other areas should be overlooked.

For banks, that means forming a new strategy composed of meaningful branch transformation, mobile and online services as well as Open Banking capabilities. Each avenue has its own purpose and role to play, and together form a unified, consumer-centric experience for the new-world banks.





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