WHITEPAPER

Open Banking – Reshaping Financial Services

Contents

Introduction

Open banking[1] originated from a requirement to improve competition and promote more innovative online payment initiatives and is now set to transform the banking industry as we know it. Also known as 'Open Bank Data',[2] the initiative started with the European Union Payment Services Directive (PSD2), implemented into law in EU countries in January 2018. The practice of banks sharing financial information electronically, securely, and only under conditions the customer approves of, it benefits consumers and businesses by providing new insights into their data to help them manage their affairs and make more informed decisions.

It also grants innovative fintechs access to the data with which they can develop new and more creative online offerings for consumers. Open banking is one of the biggest threats banks have faced in a long time and, for traditional retail banks, the idea of granting third parties access to their customers' financial data goes against their very grain. Whether it was to protect their business from the competition, or to comply with strict data privacy requirements, banks have traditionally kept their data under lock and key, rather than using it to benefit customers.

Open banking is disrupting the conventional way of doing business for financial institutions by effectively forcing them to open up access to their customer data to third parties by way of Application Programme Interfaces (APIs), enabling them to develop new and innovative products and thereby increase the competition and offer more choice to the consumer.

Open banking has the potential to **reshape the competitive landscape** and **consumer experience** of the banking industry.

Source: Investopedia

Background and aims of the directive

The Payment Services Directive 2 (Directive 2015/2366), more commonly referred to as PSD2, sets out requirements for businesses wishing to provide payment services. It applies to banks, building societies, payment institutions, and e-money institutions, and their customers.[3]

The directive, which came into force on January 13, 2018, aims[4] to provide the legal foundation for the further development of a better integrated internal market for electronic payments within the EU.

- It puts in place comprehensive rules for payment services, with the goal of making international payments (within the EU) as easy, efficient, and secure as payments within a single country.
- It seeks to open up payment markets to new entrants, leading to more competition, greater choice, and better prices for consumers.
- It also provides the necessary legal platform for the Single Euro Payments Area (SEPA).
- It repealed Directive 2007/64/EC (PSD) as of January 13, 2018.

[1]https://connect.vocalink.com/2019/january/how-apis-and-ai-can-transform-financial-services/
[2]https://www.investopedia.com/terms/o/open-banking.asp
[3]https://www.buckinghamcapitalconsulting.com/authorised-payment-institution
[4]https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32015L2366

PSD2 to open APIs

Open banking requires all financial institutions to open up customer transactional data to third parties by publishing open APIs. This enables other organizations, often fintech companies, to develop new digital products and services based on the customers' data. As a result, banks must take extra steps to ensure their customer data does not fall into the wrong hands, and that the APIs used for open banking follow certain protocols and adhere to specific requirements. Certain countries, such as the UK, have adopted an API standard with which organizations must comply before they are able to participate in open banking and gain access to data. Three of the most commonly used standards are the Open Banking UK API Standard, the NEXTGEN PSD2 API Standard [created by the Berlin Group], and the STET API specification.[5]

"The use of APIs for the transformation to an open banking platform is among the top 3 trends for retail banking in 2020" according to a report by The Financial Brand.

Open data vs data privacy

Open banking is forcing banks to unlock their customer data. At the same time, however, data privacy legislation such as GDPR and CCPA requires organizations to make their data more secure.

While open banking involves the sharing of personally identifiable information (PII) from a customer's financial transactional data based on existing accounts, spending habits, and debt history such as credit card accounts, privacy regulations require stringent control over what this data is used for.

You might ask how one seemingly contradictory concept works alongside the other. Like GDPR and CCPA, open banking is also about putting the customer back in control of how their data is used. However, opening APIs to third parties somewhat blurs the lines of data ownership and accountability and, as banks do not control the development base of APIs, there is always room for error. As most people are aware, data privacy regulation such as the GDPR will still impose a fine of up to 4% of annual revenues even for an unintentional violation.

So who is liable when a data breach occurs? According to Finextra[6], with open banking "the issue of cybersecurity has transformed from a traditionally 'vertical' responsibility on IT departments to a 'horizontal' responsibility shared across the supply chain end-to-end."

Under PSD2 in the UK for example, third party providers (TPPs) and other service providers must be regulated by the UK regulator, the Financial Conduct Authority (FCA), in order to share data. This way, in the event of a breach or a mishandling of the data, it will be the regulated firm that is responsible for anything going wrong. A fundamental objective of open banking is to enable smaller financial firms to enter the market but, as these firms or TPPs will be less likely to have access to the funds required in the event of a regulatory breach, there are still some questions around how this will work in reality.

[5]https://www.finextra.com/blogposting/14834/comparing-the-berlin-group-and-open-banking-uk-api-standards-for-psd2
[6]https://www.finextra.com/newsarticle/34820/trust-in-open-banking-negotiating-data-liability-between-banks-and-tpps

Traditional banking view

Open banking is disrupting traditional banking. It's forcing larger and more traditional financial establishments to become more competitive with smaller fintechs and more agile organizations who are not only able to adapt more easily to new technologies, but who will also have access to the traditional institutions' customer data, enabling them to offer more innovative and advanced banking products.

"Just one in four people have heard of open banking, according to a survey of 2,000 people."

Splendid Unlimited Survey 2019

Innovative newcomers

Open banking opens up a world of opportunities to fintechs and data aggregator firms. Combining artificial intelligence, the most innovative digital technology, and previously inaccessible customer financial data, they are maximizing this opportunity to develop much more personalised and tailored products offerings for the consumer.

Open APIs are making it possible for all sorts of financial firms to develop new online apps and solutions to make life easier for the consumer.

New, more useful and innovative apps are being introduced to the market on a regular basis but, as the Financial Times describes it, open banking has been a 'quiet digital revolution', with only one in four people having heard of it.

Starling Bank is a perfect example of one of the smaller financial organizations reaping the rewards of open banking technology. Rated number one in Finder.com's[7] 'Top 10 Mobile Banking Apps,' Starling Bank lets you handle all the aspects of your current account, including managing overdrafts, setting savings goals, and adding receipts and notes to your payments. Also in the top 10 are Monzo, described as 'one of the coolest banking apps available', and Revolut, praised for being 'super competitive when it comes to travelling and sending money overseas'.

Data aggregators and credit scoring firms are also taking things up a notch when it comes to personal finances. Gone are the days where you would have to apply to some sinister and unfamiliar organization for access to your credit status, as required when making some of the most important financial decisions in your life, such as applying for a mortgage or taking out a loan. Aggregators such as Clearscore and Yolt use open banking technology to access, with your permission, your full financial portfolio including current accounts, credit cards and existing loans, to provide a consolidated view of your financial status and a real-time credit score.

Nationwide Bank in the UK has also tapped into open banking technology to make moves into the mortgage space, partnering with CreditLadder to support first-time homebuyers by analysing their income and expenditure and measuring it against Nationwide's qualifying mortgage criteria.[8]

[7]https://www.finder.com/uk/top-10-mobile-banking-apps
[8]https://www.finextra.com/newsarticle/35054/open-banking-year-two-insights-from-the-cma9

Other innovative apps driven by Open APIs include Plum, which uses AI to analyse your daily transactions and spending habits to help determine how much you can afford to save, and the innovative insurance app, Lemonade, which claims to 'reverse the traditional insurance model' and, with the introduction of its Lemonade API, can be seamlessly integrated into financial advisor apps, payment processor apps, and more.

"Open Banking is a revolution for the whole industry."

Justin Basini
CEO, ClearScore

Impact on the consumer

Open banking gives the consumer greater choice when it comes to managing their money and puts them more in control of their financial affairs. Banks have to let customers share their financial data with authorized providers who offer new digital apps and solutions for things like savings and debt management, as long as the customer gives their permission.

According to www.openbanking.org.uk, the UK's Open Banking Implementation Entity (OBIE), 'open banking puts you in control of your data: an easier way to move, manage, and make more of your money.' Take, for example, credit scoring companies such as Experian and Clearscore, who can now present users with an extremely easy-to-use overview of their financial situation now that they have access to a full kaleidoscopic view of their finances. This gives individuals unprecedented easy access to important information such as credit scoring and debt balances.

Permission is important because a customer's financial data includes information about;

- their spending habits
- their regular payments and
- the companies they use (in other words their bank or credit card providers)

The idea behind these changes is that they'll bring more competition and innovation to financial services which, in turn, it is hoped will lead to more and better products to help customers manage their money.[9]

Financial inclusion

Financial inclusion, giving people access to banking products with which to better manage their money, is essential in the fight against poverty and in promoting prosperity. While almost anyone in modern countries like Spain and Germany can have access to the simplest banking products (up to 98% financial inclusion in Spain[10] - the highest in Europe), it is much more difficult for people to access banking products in poorer countries like Mexico, where only 37% of the population[11] has a bank account.

Open banking, while not intended specifically to promote financial inclusion, could potentially make it easier for poorer populations to access banking products. With easy-to-use banking apps now available and on the rise, it is expected that more people will open bank accounts online.

[9]https://www.moneysavingexpert.com/banking/open-banking
[10]https://bbvaopen4u.com/en/actualidad/financial-inclusion-challenge-open-banking
[11]https://www.cashmatters.org/blog/in-mexico-63-of-people-rely-on-cash-world-bank-2018/

In a separate open banking-driven financial inclusion initiative, and following on from their expansion into the mortgage sector, the UK's Nationwide Bank selected seven start-ups to take part in a challenge to develop open banking-based apps and services to help financially vulnerable people. According to Finextra, The Open Banking for Good challenge aimed to tap into the power of open banking to improve the lives of the one in four financially challenged households in the UK - equivalent to 12.7 million people.

IN MEXICO,

63%

OF PEOPLE ARE UNBANKED

World Bank, 2018

Open banking around the world: UK

The UK has been somewhat of a trailblazer in terms of open banking adoption. Following an investigation by the Competition and Markets Authority (CMA) into the supply of retail banking services to personal current account customers and to small and medium-sized enterprises (SMEs), open banking was one of a number of changes proposed to improve competition in retail banking and financial services. Trading as Open Banking Limited, OBIE was set up by the CMA in 2016 to deliver open banking in the UK.

Open banking was launched in the UK in January 2018 with the nine biggest banks and building societies, also known as the CMA9, first to be enrolled in the Open Banking Directory. However, despite the gusto with which open banking was embraced in 2018, a number of delays, extensions, and clarifications were required in 2019. Until now only the CMA9 have been obliged to comply, although some smaller newcomers such as Monzo, Revolut, and Starling Bank, have taken up the challenge willingly.

"What started with PSD2 regulation in Europe in 2018, open banking is now being adopted in various regions around the world."

The Digital Banker 2020

CMA 9 in the UK

- AIB Group UK (trading as First Trust Bank in Northern Ireland)
- Bank of Ireland (UK)
- Barclays Bank
- HSBC Group (including First Direct and M&S)
- Lloyds Banking Group (including Bank of Scotland and Halifax)
- Nationwide Building Society
- Northern Bank Limited (trading as Danske Bank)
- The Royal Bank of Scotland Group (including NatWest and Ulster Bank)
- Santander UK

The UK is also a leader when it comes to regulation, requiring that all open banking providers must be regulated by the FCA, and imposing a strict API standard designed to enable a well-functioning ecosystem, in which there are no barriers to TPPs.

According to Sarah Kocianski in her January 2020 blog 'Open Banking 2 Years On', however, there has been frustration on both sides, with the big banks struggling to meet deadlines and move forward with any real innovation, and the fintechs frustrated with the banks for delaying the process and thereby limiting their ability to progress.

Open banking in Australia

Australia has followed closely in the footsteps of the UK, also taking a regulatory-driven approach to open banking. But they have taken it a step further by writing open banking into their Consumer Data Rights (CDR) law.

Open banking legislation was passed in September 2019 by the Australian Parliament as a first phase of CDR. The country's 'Big 4' banks collectively control around 95% of the financial services market but open banking will change that, bringing more competition and new brands and innovative offerings to the table.

Australia's Big 4

- ANZ
- Commonwealth Bank
- NAB
- Westpac

From July 1, 2020, consumers can direct major banks in Australia to make credit and debit card, deposit and transaction account data available, with mortgage and personal loan account data to follow by November 1, 2020.[12]

Open banking in Japan

The focus of open banking in Japan is not on increasing competition, but more about improving efficiency and automation in the banking industry. Japan's Banking Act was amended in June 2018 to promote open banking, although implementation was voluntary. Around 130 chartered banks in Japan are expected to open their APIs in 2020.

[12]https://www.pinsentmasons.com/out-law/news/open-banking-in-australia-delayed

Open banking in the US

Open banking has been slow to start in the US as it is regarded by many in the industry as a competitive threat. However, as its benefits become more evident, some financial institutions are coming around to the idea. The biggest risk from the point of view of financial institutions is being forced to hand over log-in credentials to a third party - something that seems to be in complete contrast to stringent consumer protection regulations. The Financial Data Exchange (FDX) is a subsidiary of the Financial Services Information Sharing and Analysis Center (FS-ISAC). Its mission is to 'ensure resilience and continuity of the global financial services infrastructure', and is attempting to create a global common standard for secure and convenient consumer and business access to their financial data. There is a view that growing consumer demand for innovative digital banking apps and solutions combined with the strategic direction and standards set by FDX will be the motivation for the financial services industry to finally adopt a standard API.

The challenges of open banking

Despite being designed to make payments more secure, the question everyone wants the answer to is whether open banking is really safe. OBIE describes , open banking as being 'designed with security at its heart', and outlines the following steps taken in the UK to make open banking as secure as possible:[13]

- **Bank-level security:** open banking uses rigorously tested software and security systems. You'll never be asked to give access to your bank login details or password to anyone other than your own bank or building society.
- **It's regulated:** only apps and websites regulated by the FCA or European equivalent can use open banking.
- **You're in charge:** you choose when, and for how long, you give access to your data.
- **Extra protection:** your bank or building society will pay your money back if fraudulent payments are made. You're also protected by data protection laws and the Financial Ombudsman Service

But just how secure can it really be to give third parties access to your personal financial information?

API security

Open banking obliges financial firms to open their APIs to third parties. While some countries like the UK have taken strident measures to ensure customer data is protected, the very nature of the initiative means there is an increased risk of data being compromised, forcing banks to rethink and reshape their overall security posture. API security has become a critical consideration[14] for banks and the demand for API security solutions has led to a rise in the number of API vendors on the market.

[13]https://www.openbanking.org.uk/customers/faqs/

[14]https://www.fintechnews.org/stronger-security-needed-before-open-banking-arrives/

Data security

According to a report by Ernst & Young,[15] one of the key strengths of open banking's security is, as its name suggests, its openness It argues that, for open banking to succeed, 'transparency will be paramount for service providers to build trust with consumers'.

In contrast to openness and transparency, however, is the need to protect and secure the data being shared between organizations. Although open banking ultimately hands control of what happens to the data to the customer, the bank is still the custodian of that data. It must, therefore, ensure it implements strict security measures to prevent sensitive customer data from being accessed by cybercriminals when in transit or in storage , while complying with data privacy regulations.

Imperva is an analyst-recognized, **cybersecurity leader** championing the fight to **secure data and applications** wherever they reside.

Conclusion

Open banking offers a solution to several consumer pain points. It will do away with the need for filling out repetitive forms when applying for financial services. Open APIs will enable customer data to be transferred among different partners for automated form-filling. Consumers are already able to gain visibility of their financial status, manage their debt, and view their credit score via consolidated credit-scoring applications.

And the benefits don't stop with retail banking. When applied to small businesses and corporations, open banking offers many more advantages. Take, for example, a large corporation with several accounts to manage. Open banking could provide account managers with a consolidated view of the organizations' financial status, offering clear visibility into all accounts via one platform. This opens the door for fintechs to develop financial management apps targeting the corporate world as well as the consumer market, offering tools such as cashflow management and financial analysis apps.

Delays, deliberations, and security challenges aside, open banking continues to grow at a rapid pace. In the short space of two years it has evolved from an idealistic digital concept to a tangible reality which is driving transformation within the financial services industry around the world. While frontrunner nations like the UK and other early adopters have written open banking into legislation or created a standard to adhere to, other countries are now building the foundations upon which to open their APIs in the future to meet the inevitable consumer demand coming their way.

To find out how Imperva supports the Financial Services sector visit www.imperva.com.

[15]https://www.ey.com/en_gl/banking-capital-markets/five-approaches-to-secure-open-banking

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