SMU FinTech Publication

Research – Open Banking

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Open banking opens doors

The open banking scene of today

What is open banking?

Open banking allows third-party financial service providers to access financial data given authorization by banking customers. This is done through the use of application programming interfaces (APIs) which allow banks to share customer data without disclosing account credentials. This has the potential to radically transform the financial sector given the possibilities that secure data sharing would allow, enabling customers to understand their financial circumstances and to make more informed decisions with regards to financial products. Open banking also holds the potential to improve the customer experience by aggregating customer data in a single location. Prior to the advent of the open banking concept, financial data sharing largely required disclosure of user credentials and used unreliable methods such as data scraping, which posed significant security threats. This significantly curbed the extent to which third-party providers (TPPs) were able to participate in the growth of the financial ecosystem. The API mechanism allows the relevant parties to conduct data sharing in a far more secure environment, thus giving open banking the potential to revolutionize the financial sector.

Transforming the customer experience

In an age where customer expectations are constantly increasing, open banking is valuable for its potential to transform the customer experience.

Appetite for value-added mobile banking services(%), GB consumers with a mobile banking app

The 'ability to view and manage all my accounts from different providers' was the most desirable feature among those polled

Source: Deloitte UK, 2016[1]

Many TPPs are responsible for the development of new and innovative technologies such as AI and real-time data capture. The integration of TPPs into the banking experience thus has the potential to fulfil a greater range of customer desires. Open banking firm Moneyhub combines a customer's bank accounts, credit cards, investments, savings and borrowing and provides the customer with financial insights, helping to plug the gap for such a service in the consumer market. Customers are also able to share their data with a financial advisor and control the amount of data shared. Moneyhub then consolidates customer's financial data via aggregation and analysis to help SMEs better serve their customers by understanding their spending habits.

By facilitating data sharing, open banking also has the potential to advance financial inclusion goals worldwide. Banks and TPPs are able to combine limited information on thin-file customers in order to carry out risk-scoring and credit-underwriting in a more precise manner. Firms such as Angaza use alternative credit-scoring methods facilitated by data aggregation to allow over 5 million people[2] in emerging markets access to products such as solar home systems and clean cookstoves. Credit Kudos is a similar credit reference agency that helps customers with limited credit history to access credit. The firm allows customers to easily and securely share data directly from their bank with lenders, accelerating credit scoring.

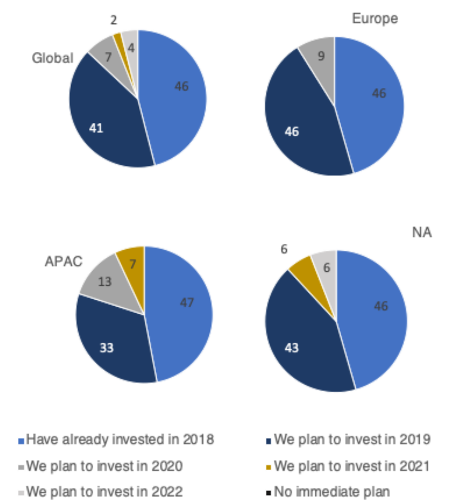
How open banking will affect market competition

The financial industry is currently greatly dominated by legacy players. Open banking will serve to greatly increase the level of competition. The Competition and Markets Authority (CMA) found that the top 4 banks represent 77.2% of the UK current account market and the market experiences a low switching rate of around 3%[3]. Data sharing reduces the significant advantage incumbents enjoy from exclusive access to historical transaction data. Opening up this data to TPPs via regulation or partnerships levels the playing field and vastly improves the chance of survival for new entrants in the market. Furthermore, since the open banking model significantly increases competition, financial giants will be forced to improve their product offers in order to compete with agile new entrants.

The role of legacy banks

On the surface, open banking does not bode well for legacy banks. Increasing pressure on banks to share customer data has caused a loss in banks' competitive advantage, requiring them to leverage APIs and open banking principles to improve technical and operational capabilities in order to retain popularity amongst customers. To create such new service propositions and enhance business offerings has also required hefty investment. Banks additionally face the risk of losing trusted client relationships should security breaches occur as data becomes more open. While open banking remains in its early stages, banks that operate in multiple countries will also have to reconcile the varying regulations and standards in different markets in order to provide customers with the same level of service. Despite the struggle of adaptation, resisting the

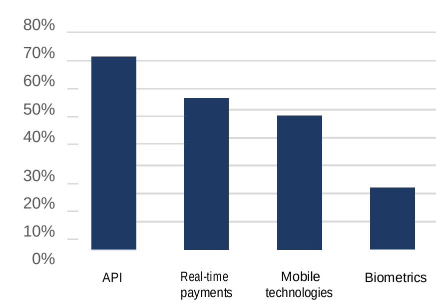
When does your bank plan to make investments in Open Banking for SMEs and Corporate customers? (%)



Source: Accenture, 2018[4]

shift toward open banking will be futile. Where regulation is present, legacy banks will be forced to learn to shift towards more open models as open banking becomes increasingly ubiquitous. Even in markets where data sharing is not explicitly required by regulation, customer demand is likely to drive the adoption of open banking.

Technologies which will dominate retail payments in 2022

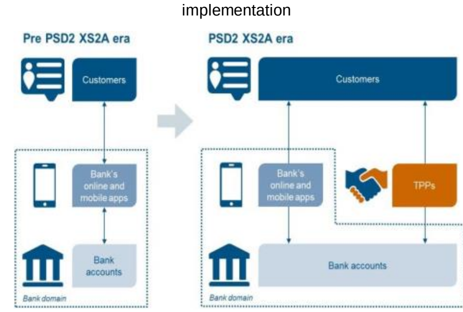


Predictions by financial services club members worldwide

Source: Statista, 2020[5]

The importance of regulation

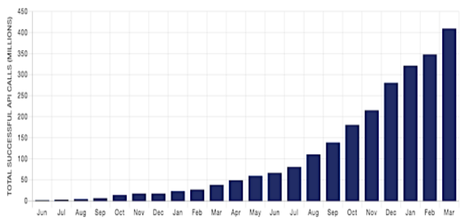
Change in financial ecosystem due to PSD2 implementation



Source: Nordea[6]

The EU and UK are considered front-runners in the push for open banking, which can be credited to the successful implementation of regulation surrounding open banking. In 2018, the General Data Protection Regulation (GDPR) was implemented in the EU, through which customers became able to provide their financial data to TPPs. The second Payment Services Directive (PSD2) was implemented in 2019 with the aim of creating a more integrated payments market, levelling the playing field for financial providers and making general improvements to the customer experience in the financial sector. Coupled with the Open Banking Standard which provides guidelines for members of the EU financial sector, the UK has seen a steady shift towards open banking as reflected by the surge in successful API calls.

Total successful API calls in the UK (2018-2019)



Source: Open Banking, 2019[8]

For open banking to succeed, sharing of the transaction data and client relationships possessed by incumbent banks is crucial. However, banks are likely to view opening of such data flows as a threat and will take measures to retain market power. Regulation thus plays an important role in the growth of open banking in order to pressure banks into sharing data and ultimately ensuring healthy competition. For instance, PSD2 transfers the authority to share data from bank to account holder.

Further examples of regulation include Mexico's Fintech Law which provides a regulatory framework for Financial Technology Institutions (FTIs). This helps to instil greater confidence in industry participants that may otherwise hesitate to enter the local open banking scene due to the lack of legal protection. The Fintech Law also includes security measures such as the establishment of client and investor identification standards, helping to assuage consumer fears surrounding data security and improving consumer sentiment.

Other approaches to open banking

Technological push

Apart from a regulation-driven approach, development of technology has also been a popular method of embracing open banking in some markets. Standardisation has been applied in the EU and UK via the Open Banking Standard which is open to all account providers (ASPSPs) and has been implemented across 90% of the UK payments accounts market[7]. Led by organizations such as SIX Swiss Exchange, Swisscom and SFTI, Switzerland has rolled out standardized APIs in order to facilitate the adoption of open banking. Similarly, Nigeria is creating API specifications for interface standardization. Such specifications are important in creating a common standard for the open banking ecosystem and accelerating the implementation of open banking practices.

Facilitation

In Southeast Asia, Singapore is ranked first in Asia-Pacific Open Banking Readiness by Finastra[9]. The Monetary Authority of Singapore (MAS) has taken a more facilitative approach through the Smart Nation initiative and the formulation of open banking policies .The MAS has also released an API Playbook with the Association of Banks in Singapore which aims to "encourage consistency, maintainability and good API practices"[10].

Digital ecosystem

Popular tech giants AliPay and WeChat have capitalized on open banking to produce financial services, among others, that fulfil the customer's every need. Fully digital payments remove the need for contactless cards, granting extreme convenience for the customer. 65% of Chinese tourists use mobile payments, compared with 11% for non-Chinese, and a staggering 90% of Chinese tourists would use mobile payments overseas[11].

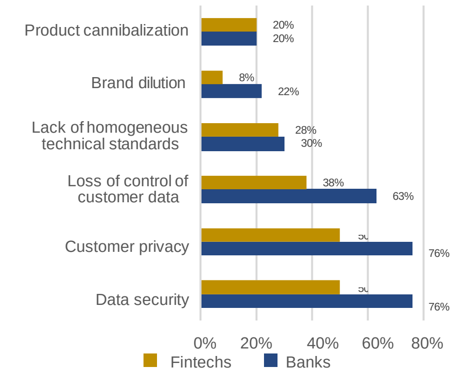
"Alipay started Chinese-style open banking seven years ago by aggregating bank *accounts behind the Alipay wallet. We've* been able to understand the value of customer data and by developing technology to transfer payment from customer to merchant in seconds, we have vastly *improved the user experience."* -Tao Tao, business development director for Alipay EMEA[12]

The efficiency of mobile payments has also shown to boost spending overseas, allowing customers to bypass the inconvenience of foreign payments. In the same study, 91% of Chinese tourists[11] expressed that if overseas merchants supported the use of Chinese mobile payment brands, it would further increase their desire to shop. Evidently, open banking is increasing consumers' propensity to spend by providing convenience, which could eventually be game-changing for the retail industry.

Challenges to adoption

Globally, the net positive consumer sentiment is low at 28%[13], an overall score derived from sentiments towards open banking, sharing financial data and related financial services in a study by EY Global Banking. This is a major concern as positive consumer sentiment plays a crucial role in the widespread adoption of open banking. Low demand will naturally hinder growth of the industry. The same study found that over 50%[13] of negative sentiment was derived from concerns about data protection and cybersecurity. Concerns surrounding data privacy could also potentially hinder banks from supporting open banking and must be addressed.

Global Banks' and Fintechs' Concerns Regarding Open Banking



Source: Capgemini and Efma, 2019[14]

The responsibility thus falls on regulators to implement both stricter regulation and enforcement to convey assurance to consumers and financial institutions alike. Testing and authentication of APIs checks on endpoint security and maintenance of data security must be rigorous for customers and banks to be convinced that open banking is the way forward.

Conclusion

Global regulatory frameworks and API standards are at the heart of successful open banking in the future. A shift in this direction is evident in the introduction of initiatives such as the ASEAN Financial Innovation Network (AFIN), which launched the API Exchange (APIX) in 2018. APIX is a global marketplace and sandbox, promoting cross-border collaboration between financial institutions and FinTechs. Following this first step, more must be done by the international community to establish global agreement on open banking practices. In view of exponential globalisation, many companies serve customers worldwide and an international standard is likely to greatly improve efficiency and increase convenience for the customer.

Although this streamlining of data access systems is the primary challenge faced by the open banking ecosystem, it is paramount that privacy and security remains the utmost priority for all parties. Banks and TPPs alike will also have to understand the current open banking trends and vie to gain first-mover advantage in an increasingly competitive market. Despite the several challenges that both regulatory bodies and financial institutions will have to overcome, global trends are decisively pointing towards a financial landscape revolutionized by open banking in the near future.

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