International Journal of Research in Engineering, Science and Management
Volume 5, Issue 3, March 2022
https://www.ijresm.com | ISSN (Online): 2581-5792

Open Banking: Evolving Global Landscape and Opportunities for Sustainable Growth

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***Abstract*: Fierce competition, increasing customer expectations, advancements in technology and changing regulatory landscape are forcing traditional banks to consider new ways to reduce costs, increase revenue, and ensure sustainable growth. Open banking has allowed the traditional banks to offer a wider range of products through sharing of data with third-party applications, on a secure basis with the consent of customers. Banks that are likely to thrive in the open data economy will be those that are able to aggregate data, extract actionable insights from it, and use it to offer superior customer experiences. 'Open Banking' may be further extended to 'Open Finance', which will enable data to be exchanged between a wide range of financial institutions to create a more comprehensive and accurate assessment of risk of an individual.**

***Keywords*: Open banking, Platform, Banking as a service, Open finance, Monetize.**

1. Introduction

Banks today face fierce competition, intense cost pressures and increasing customer expectations. The challenging environment makes it imperative for the banks to offer customers innovative and differentiated products, services, and experiences, to stay relevant and competitive. Historically, banks have served as custodians of customer data and have been solely responsible for storing and managing customer data. However, during the past few years, a paradigm shift has seen customers take ownership of their data and allow third-party providers of choice to use the financial information held by their bank to gather actionable insights and design innovative products and business models to better serve their customers.

Technology has facilitated a progressive opening of the banking infrastructure to third parties, bringing about an unprecedented revolution in the financial industry. It has also ushered in an era of collaboration between the traditional banking players and new age fintechs. The opening of banking infrastructure led to the concept of "Open Banking", where consumers allow third-party providers to use the financial data held by their bank using technology known as Application Programming Interfaces (APIs). APIs are designed to connect two pieces of software to each other to exchange messages or data in a standard format, enable innovations in the business model and create value offerings through effective utilization of data.

The coronavirus pandemic has expedited digital transformation in banking industry and made the use of digital channels as primary means of conducting banking business. The pandemic has made banks realize that the future of the industry will not be solely dependent on in-person interactions as consumers are more inclined to embrace digital channels. Experts believe that although open banking is a long-term development, the pandemic has given it a powerful boost. The increased focus on digital banking projects could help "Open Banking" primarily for two reasons: make it easy for fintech developers to get on board with the bank's APIs and make it easy for customers to sign up for innovative digital offerings of banks and Fintechs.

2. What is Open Banking?

Open banking is a business model in which data and information can be exchanged or shared in the financial ecosystem. It refers to the opening of banking infrastructure to third parties, which allows other companies apart from banks to access and use banking information of customers, usually through APIs and with customer's consent. The third parties, which do not necessarily have to be from the financial sector, can access the data and leverage the insights generated to develop innovative products and services.

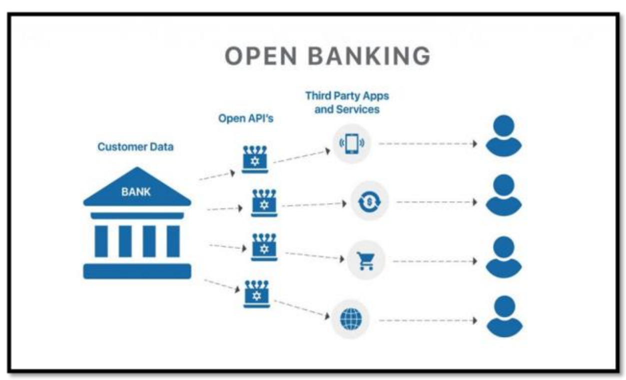

Fig. 1. Open banking (Source: Fortunesoft IT Innovations)

Open banking, however, is adopted quite differently across different jurisdictions. Some have gone ahead to create a regulator-driven, well-defined framework such as UK and Australia, while others have followed a more market-driven approach such as USA and India. The common point, however,

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is providing customers control over sharing their information and servicing them through a targeted, data-driven approach.

3. Pillars of Open Banking

Some of the key considerations that serve as pillars to a successful open banking ecosystem are:

- *Data sharing*: Open banking necessitates secure sharing of data, based on customer consent, to third parties for development of various products and services. Banks and FIs can monetise customer data, thereby generating an additional stream of revenue.
- *Data privacy and cybersecurity*: Data protection is extremely important as customer trust and reputational risk all depend on the ability of banks and FIs to manage data in a secure environment.
- *Regulatory compliance*: Regulatory authorities across different regions have followed a differentiated approach in the development and implementation of open banking protocols. Banks and FIs must ensure that they are compliant with existing personal data protection, consumer protection, data sharing, and cybersecurity regulations, as applicable in their jurisdictions
- *Partnerships*: Banks and non-banks can forge partnerships and develop capabilities to strategically leverage data, products, and services, to continually innovate and better serve their customers.
- *Customer experience*: Open banking not only provides customers greater control over their data, but also improves banking experience by gathering integrated insights from the data to provide customer-centric products and services.

4. How does Open Banking Benefit the Customers and Banks?

Studies by McKinsey suggest that embracing open banking is beneficial for the banks and financial institutions and also for businesses and consumers. A rough estimate by Mc Kinsey pegs the value of adoption of open financial data to result in a boost in GDP of between 1% and 1.5% in the U.S., U.K., and European Union, and much higher in some other countries, particularly India.

The trend toward greater sharing of data between financial institutions, fintechs, big techs and other third-party providers is going to accelerate in future and will have profound implications for the traditional banking industry. While the traditional financial institutions may face a tough future, it will be imperative for them to understand and respond to these changes, reimagine offerings, reorient business models, and forge successful partnerships with fintechs, to ensure continued relevance and engagement with customers.

Adoption of Open Banking and Open Financial Data will result in several benefits not only to the financial institutions but also to the consumers and small businesses. Some of the benefits are:

A. Benefits to Consumers and Small Businesses

- *Access to a range of financial services*: Data sharing enables customers to buy and consume a range of financial services which were hitherto inaccessible. Open financial data can help in credit risk assessment of borrowers by analyzing behavioural data and various utility.
- *Greater user convenience:* Data sharing makes it convenient for customers to interact with financial services providers, during the purchase of products and services. Open access to data can automatically prefill the application forms allowing consumers to apply for loans without needing to key in information from different sources.
- *Improved product options*: Open financial data can broaden and improve the range of products available to customers, enabling them to deploy their savings profitably. Open-data ecosystem makes it easier to switch accounts between institutions, enabling the retail customers to shop around for the best option.

B. Benefits to Banks and Financial Institutions

- *Generate higher profitability*: Open banking offers a “plug and play” model wherein banks can offer a full range of services at lower operating costs, thereby increasing profits. Banks and FIs can also increase penetration of products and services through effective utilisation of data and increase revenue by data monetization opportunities.
- *Customer centricity:* Open banking can significantly enhance customer experience and help in the development of a customer-centric business model. This can be achieved by customized and contextual product offerings based on the real-time view of the customer’s financial data.
- *Increased operational efficiency*: Data sharing will increase transparency around product pricing, cut costs by providing verified data digitally, help financial institutions (FIs) take better informed decisions, and improve efficiency of services by making it easier to adopt automated technologies. All this can also improve customer experience by promoting faster and more transparent interactions. For example, customer profiles built on open data provided by other institutions can increase use of predictive analytics and artificial intelligence in interactive voice response-based call centre operations. The open-data ecosystem can also help the banks to engage in more targeted and data-driven marketing campaigns
- *Better fraud prediction:* Sharing fraud-specific information and other kinds of data can provide more evidence to instantly flag suspicious activity and prevent the occurrence of frauds.
- *Improved workforce allocation*: Banks can use open data to utilize their workforce optimally by assigning

more staff to high priority activities. For example, leveraging on external data sources can help recovery staff to focus better on high-risk customers. Similarly, pulling reliable data on customers from various external and internal sources can increase the productivity of researchers and designers by reducing the time they spend in sourcing data from vendors.

- *Increased data integration*: Open banking can lead to integration of all financial data in one app wherein customers can log-in and manage their accounts conveniently. The application can be integrated with other non-banking services such as balance in meal cards, flight, and hotel information. Data sharing also results in cost savings for banks as the shared data can be used for the purpose of lead generation and customer targeting.

5. Leveraging Open Banking Opportunities

Banks must work out a strategy for leveraging APIs and Open Banking to increase the range of products, enhance the customer experience, and generate additional revenue streams from both financial and non-financial partnerships. Banks that do not transform the traditional operating models run the risk of being left behind as non-traditional players and big tech providers continue to use APIs to design innovative products and create unique customer experiences. Also, with thinning margins and increased pressure on operating costs, all revenue opportunities must be explored for possible implementation. Banks, which have a vision for Open Banking beyond regulatory compliance will be able to deliver the experience their customers expect and flourish in a new competitive and collaborative landscape that includes new players like Fintechs, Big techs and non-financial-services providers.

The following models can be used for leveraging the opportunities from Open Banking:

1) Banking as a platform

The platformification of banking usually refers to the aggregation of services and/or capabilities beyond the traditional banking product offerings. The platform provides the customers with more financial and non-financial options and expands offerings from third-party partners in a seamless manner. This option is often delivered by larger financial institutions that can benefit from expanding services to a broad range of customers. In such a model, developmental tools may be provided to third-party partners, but financial data is generally not shared with third parties. The key characteristics and benefits of this model are detailed in Table 1.

2) Banking as a Service (BaaS)

The BaaS alternative allows fintech firms and other third parties to connect with the systems of traditional banks through APIs and empowers the third party to build offers and capabilities on top of the providers' infrastructure. The BaaS model has provided a platform for innovative fintech firms and also helped the incumbent financial institutions to keep pace with innovative service providers. This strategy is good for banks and fintech firms that want to rapidly expand their reach and access new markets. The key characteristics and benefits of this model are detailed in Table 2.

Banks pursuing a Banking-as-a-platform model can generate value either directly by offering third-party access to the bank's distribution network, in return for a fee or revenue sharing arrangement or indirectly by using the partnership to increase their customer base, increase efficiency and reduce costs. In a Banking-as-a-service model, value can be generated with fees charged or through increased distribution or reduced delivery costs.

Table 1
Banking as a Platform: Key Characteristics and Benefits

Key Characteristics	***Customer Experience***: Owned by the Bank as primary channel owner
	Bank's Channel: Mobile or Web
	Financial Product Ownership: Owned by the Bank or a third-party depending on terms of collaboration
	Banking License: Managed by the owner of the financial product
	Customer Onboarding/KYC: Shared between the Bank and a third party depending on terms of collaboration
	Customer Servicing: Provided by the Bank and supported by a third party (each having own obligations)
	Risk or Liability: Predominant risk or liability is with the owner of the financial product
Benefits	***Generates new revenue streams*** by cross and up-selling of new products and services
	Attract more customers with wide range of products and customized offerings
	Accelerate speed to market and enhance the quality of product offerings
	Reduce costs for developing new offerings

Source: Accenture and The Financial Brand

Table 2
Banking as a Service: Key Characteristics and Benefits

Key Characteristics	***Customer Experience***: Owned by a third party and managed in its channel
	Bank's Channel: Developer portal
	Financial Product Ownership: Owned by the Bank in most cases
	Banking License: Managed by the owner of the financial product, in most cases the Bank
	Customer Onboarding/KYC: Shared between the Bank and a third party depending on the use case
	Customer Servicing: Provided by the channel owner or a third party and supported by the Bank (each having own obligations)
	Risk or Liability: Predominant risk or liability is with the owner of the financial product, in most cases the Bank
Benefits	***Expand Distribution channels and market reach*** via access to new customers
	Generate new revenue streams by selling services and products through partners
	Develop faster market opportunities by accessing new customer base
	Reduce costs for marketing of products and services

Source: Accenture and The Financial Brand

Table 3
Open banking developments across the globe

Region	Developments
UK	Considered a leader in Open Banking, UK has adopted a regulatory-driven approach, setting early deadlines for its major banks to build the required infrastructure. The UK's nine largest banks also funded a central platform, the Open Banking Implementation Entity (OBIE), that has conducted extensive market research to develop API specifications, customer experience, and operational guidelines for the various stakeholders. OBIE in its Annual Report 2020 notes that there are more than 3 million users of the UK's Open Banking system with a thriving ecosystem of more than 700 companies
EU	The European Union's Open Banking approach is also focused on regulation in the form of Payment Services Directive (PSD2), which was designed to address the shortcomings of PSD1, integrate EU's payments network, promote competition, open access to data, and increase consumer protection. While the directives dictate that banks must create the APIs to interact with third parties, there is no specific guidance on how to do it. Open Banking has worked well in some EU countries such as Belgium and Germany, however the evolving landscape in other countries holds immense potential to tap the benefits of Open Banking.
USA	Many banks in the United States have collaborated with fintechs like Plaid, PayPal, Intuit and Zelle to develop innovative products and services. Regulators are less involved compared to Europe, thus allowing the market forces to drive the way forward in implementation of open banking standards and protocols.
Asia	Adoption of open Banking in Asia is at a nascent stage and has been largely driven by market forces. However, many Asian countries such as Japan, Singapore and Hong Kong are now developing a regulatory framework to prioritize Open Banking. A relatively greater willingness by individuals in Asia to share their data would provide the impetus for rapid growth of Open Banking in future.
Australia	Australia, has introduced a new Consumer Data Right that will hasten the implementation of Open Banking initiative. Australian Competition and Consumer Commission (ACCC) has issued operational guidelines and will monitor the development of open banking activities. The top four banks (Commonwealth Bank of Australia, ANZ, Westpac, and NAB) are compliant as of July 2020 and implementation would be in a phased manner based on the product and entity type.
India	While adoption of open banking in the US and Japan is largely driven by market forces and countries such as Australia and the UK have adopted a regulatory-driven approach, India has adopted a hybrid model where both the market and government initiatives have collectively fuelled the ecosystem's development. In 2016, Unified Payment Interface (UPI) was launched in India allowing an individual to access his bank accounts from mobile apps (such as Google Pay) and make transactions to accounts held with any other bank. RBI, in 2016, announced the creation of an entity called Account Aggregator (AA) and permitted them to consolidate financial information of a customer held with different financial entities, spread across financial sectors. AA acts as an intermediary between Financial Information Provider (FIP) such as bank, non-banking financial company, insurance company, etc., and Financial Information User (FIU). RBI's account aggregator framework which was in testing and development stage for some time, went live on Sept 2, 2021. Eight of India's major banks — State Bank of India, ICICI Bank, Axis Bank, IDFC First Bank, Kotak Mahindra Bank, HDFC Bank, IndusInd Bank and Federal Bank, joined the AA network that will enable customers to easily access and share their financial data. The flow of information on AA framework takes place with customers' consent which allows them to avail various financial services from a host of providers on a single portal. The Open Banking ecosystem is expected to grow rapidly and expand to other sectors like insurance and securities.

6. Monetizing Opportunities for Banks

Banks can leverage partnerships to reduce costs by replacing internal operations with efficient third-party service providers, resulting in low service costs and enhanced customer experience. Banks can offer to third party platforms free or premium APIs to unlock the full potential of API-enabled products and services.

- *Free APIs*: Banks can provide certain data and information free to third party providers. These third parties can provide value added services to customers which can help the banks to improve customer experience, increase the penetration of services, and increase customer acquisition.
- *Premium APIs*: Banks can charge third-party providers for other services and data, through one of the following pricing models:
  - ✓ Pay-per-use: No minimum fee, charges can be on usage basis
  - ✓ Free+Premium: Free for basic services; premium pricing for providing more information
  - ✓ Tiered: Tiered pricing for pre-defined range and segments
  - ✓ Fixed fee: A fixed/percentage of transaction paid to the API provider

Banks can leverage the insights generated from data for lead generation, cross-selling products, risk assessment, NPA management, and product development. This can result in significant business growth, asset quality improvement, increased operational efficiency, and cost optimisation. Sharing of data can also enable paperless customer onboarding at remote locations through quick verification of customer data.

7. Open Banking-Evolving Global Landscape

During the last few years, the pace of adoption of open banking has increased across the globe, however, there are significant differences in its applicability, and scope of implementation from one region to another. Table 5 lists the developments across different regions of the world:

8. Conclusion

The increasing competition, evolving customer expectations, advancements in technology and changing regulatory landscape are forcing traditional financial institutions to consider new ways to reduce costs, increase revenue, reinvent traditional products and services, and ensure sustainable growth. While consumers once viewed websites and mobile apps as a way to learn about products or perform transactions, they now look to integrated platforms with embedded capabilities to offer interconnected solutions and make their life easier.

Open banking has allowed the traditional financial institutions to offer a wider range of products through sharing of data with third-party applications, on a secure basis with the consent of customers. Banking leaders across the globe are taking the initiative to shift towards the open data economy by developing Open Banking business models and building capabilities to compete effectively with New age banks, big tech companies and API driven agile competitors. Such a shift will help the banks to find new ways to monetize banking, promote growth, cater to evolving customer needs with better interface and competitive pricing. The banks that are likely to thrive in the open data economy will be those that are able to aggregate data, extract actionable insights from it, and use it to offer superior customer experiences.

Countries across the globe have adopted different approaches while transitioning to open banking business models. While open banking development in the US and Japan is driven by domestic markets and countries such as Australia and the UK adopted a regulatory-driven approach, India has adopted a hybrid model where both the market and government initiatives have collectively fuelled the ecosystem's development.

'Open Banking' may be further extended to 'Open Finance', which will enable data to be exchanged between a wide range of financial institutions such as banks, insurers, pension providers, fintechs, mutual funds, crowdlending platforms, etc to create a more comprehensive and accurate assessment of an individual. Such fundamental changes will take time to fully evolve on a global scale, but with advanced banking technology, Open Banking has the potential to revolutionize the banking industry and ecosystem providers.

References

[1] Open Banking Builds Trust Among Consumers at Multiple Levels, an article published by Financial Brand, July 23, 2021.
[2] Open banking: Unleashing the power of data and seizing new opportunities, a report published by Deloitte, January 2021.
[3] Know all about Account Aggregator Network- A financial data-sharing system, press release, Ministry of Finance, Sept 10, 2021 (PIB).
[4] *Catching the Open Banking wave*, a report published by Accenture, 2021
[5] Financial data unbound: The value of open data for individuals and institutions, a discussion paper published by Mc Kinsey Global Institute, June 2021.
[6] *What's next for Open Banking*? An article published by World Economic Forum, April 06, 2021.
[7] From open banking to open finance: adding value to the customer experience, an article published by BBVA API market, July 29, 2021.
[8] *Open banking: revolution or evolution*? A report published by Temenos, 2020.
[9] Global Open Banking Report 2020 published by 'The Paypers'
[10] *Open Banking Provides Potential for Revenue Goldmine*, an article published by Financial Brand, September 21, 2020.
[11] Speech by Shri M. R. Rao, Deputy Governor, RBI, in a webinar on Open Banking organised by TCS in association with Indian Embassy, Brazil on April 14, 2021.
[12] EY Open Banking Opportunity Index: where open banking is set to thrive, an article by Hamish Thomas, August 31, 2020.
[13] How Open Banking's Big Threat to Incumbents Could Become a Gain, an article published by Financial Brand, July 14, 2021.
[14] How open banking will power the next wave of fintech innovation in India, an article published by Ryan Frantz, July 29,2021.
[15] Open Banking Implementation Entity (OBIE), UK, Annual Report 2020.
[16] *The evolution of Open Banking in India*, an article by Sameer Singh Jaini and Shashank Shekhar from 'The Digital Fifth', November 27, 2020.
[17] *What is open banking and why is it important*? an article published by BBVA API market, January 10, 2020.
[18] *Open Banking Gets a Big Jump Start from COVID*, an article published by Financial Brand, July 27, 2020.