



Open Banking in India: From Open Payments to Consent-Driven Open Finance

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Abstract

Open banking has gained popularity in most countries where customers can securely share their payment data with regulated third parties. In some cases, regulated third party financiers are also in some cases allowed to make payments in place of their customers. In many countries, the central government asks banks to provide standardized API access through regulation for open banking. In India, a unique environment prevails where in the government has a two-way approach to promote openness which expands within people financial inclusion. UPI (Unified Payments Interface) and AA (Account Aggregator) framework are two initiatives taken by the central government of India under the DEPA (Data Empowerment and Protection Architecture). This paper analyses on how open banking is implemented, the role of the central government in open banking, and whether foreign direct investment is needed to further push the case of open banking in India. Further, the path to profitability of payment applications in India such as Google Pay, PhonePe and PayTM where payments are conducted seamlessly by customers without any cost is also studied. India cannot continue to have a zero MDR (Merchant Discount Rate) policy forever as someone has to take the cost of technology, security and seamless open banking. Sustainable monetization of payments without losing the trust of millions of people who are using the open banking channels and quick resolution of grievances will go a long way in transitioning into open banking economy in India.

Keywords: Open banking; India; Account Aggregator; DEPA; UPI; fintech profitability; RBI; open finance; consent

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1. Introduction

Since the last decade, banking all over the world has transitioned from a closed system controlled by central institution, to an environment where each transaction revolves around the customer of the financial institution. This mega-shift has been made possible through digital technologies where all kinds of banking services are being provided which goes beyond the services provided by traditional physical banking. There has always been an opinion that banking belong to only certain financial institutions and others cannot handle the payment and customer data. Open banking has instead put the onus on the customer who owns the data and payments to decide what type of data is to be shared with the financial institutions, provided the payment channel is secure and within government regulation.

Developed economies like Singapore and in certain European countries, open banking has been brought into the system through financial regulations. Banks are supposed to provide the data with regulated third-party institutions through standardized regulated channels. While this approach was a success when viewed from central government, it leaves a lot of space for improvement in oversight and uneven adoption across financial institutions. Certain financial institutions benefited from customer data and pushing through customer centric financial services, some were disadvantaged due to lack of infrastructure. India's way of approach to open banking has been considerably different. Instead of introducing one giant regulation which has to be followed by every financial institution, the central government has promoted open banking incrementally by building the payment infrastructure needed and also financial data sharing which is mainly consent-driven.

The popularity of UPI in India has been a major success story for the Central bank of India, as most of the payments has been transferred from paper-based channels to digital payments. UPI has transformed the way in which people do payments from small-scale and multiple payments to large bullet payments. The central government has also provided full support for such technological adoption through its promotion and digitisation. For such a big regulation-based change in banking, both the government and the central bank should work together as in this case to tap the full potential of open banking. On top of the success brought in by UPI, the central government of India (Reserve Bank of India) also introduced the Account Aggregator (AA) framework for enabling customers to make payments securely via regulated channels which can be monitored and controlled by the end customer.

This paper argues that open banking is not a technical reform but also a socio-economic change enabled by the customer with their consent for

ease of use and seamless payment transfers, keeping in mind the secure channel and oversight provided by the central government. Open banking and UPI show how far India has come in financial literacy and financial digitisation by bringing in more people under financial oversight to prevent fraud and provide more people-centric regulations. This paper also discusses the role of the Reserve Bank of India in this development. Governments have tried to broaden industries by inviting in more foreign direct investments but the effect of FDI (Foreign Direct Investment) in open banking is still unexplored.

2. Open banking in India: a different route to openness

In broad international terms, open banking usually involves two capabilities. The first is data access, where customers allow regulated third parties to retrieve account information. The second is action initiation, where customers allow a third party to initiate a payment or other financial action on their behalf, under strict authentication. The World Bank's technical note frames open banking as a mechanism to give customers the right to share bank-held information with trusted parties, typically through secure interfaces and governance frameworks (World Bank, 2022).

India's system reflects both capabilities, but in a distributed way. Payments are already open and accessible for everyday users through UPI. Data sharing is being formalised through the AA ecosystem, which is a regulated method for customers to share their financial information with consent. DEPA provides a conceptual and operational architecture for consent-driven data exchange across sectors, with finance as the most mature implementation area (NITI Aayog, 2020).

The AA framework matters because it answers a question that open banking must address everywhere: "How can data be shared safely at scale without turning privacy into an afterthought?" The AA model attempts to make consent explicit by separating the roles of data holders (financial information providers) and data users (financial information users), with AAs acting as regulated intermediaries that manage the consent and secure transfer workflow (Rao, 2021).

3. Impact of open banking in India

3.1 Consumer experience and friction reduction

A simple way to see open banking's value is to compare it with the older "document economy" approach. A decade back, individuals asking for credit from traditional financial institutions such as banks were asked to submit loads of documents like banking statements, property documents,

salary slips to screenshots and pdfs of personal documents. This kind of document submission and document travel took time and patience, and also caused errors and delays, often leading to re-evaluations. This has changed to consent based exchange where the onboarding time for a customer has largely reduced. Researches conducted after the introduction of AA framework has emphasised that there has been a reduction in manual processes and more people being benefited, particularly small businesses facing immense friction in formal finance (ADBI/ICRIER case study, 2024).

3.2 Financial inclusion

India's open banking journey cannot be decoupled from financial inclusion. When more people are brought under formal banking channels, it becomes easy for banks as well as regulated third parties to provide credit by evaluating their cash flows and financial statements (with customer permission). Literature for open banking which primarily focussed on MSMEs show that financial inclusion has reduced financial information imbalance and has supported to get formal financial opportunities (ADBI/ICRIER, 2024).

3.3 Competition and innovation in financial services

Open banking reshapes competition by reducing customer lock-in. If consumers can port their data through a trusted mechanism, new firms can compete on user experience, price, and product quality rather than relying on incumbency. The global open banking literature connects these effects to the emergence of new digital business models and platform strategies (Ramdani et al., 2020).

3.4 System-level impact: the role of public digital infrastructure

India's impact is amplified because open banking is being layered onto an already massive digital payments ecosystem. UPI can be considered as a catalyst that created a national habit of interoperable digital payments, which indirectly supports adoption of adjacent innovations such as consent-based data sharing and embedded finance (CDPI, 2024).

4. How far has India come, and what remains to reach “true open banking”?

India's progress can be described as strong and maturing on consented data sharing, and still evolving on uniform “open banking maturity”.

The AA framework was created under RBI's regulatory design for NBFC-Account Aggregators, and it has moved from concept to real

adoption. The IMF's assessment emphasises that regulated data laws can reduce privacy risks that arise when data sharing is done informally or through unsafe "screen scraping" methods (Carrière-Swallow et al., 2021).

Public adoption indicators also suggest momentum. Industry ecosystem tracking reports that the AA system has crossed very large consent volumes over time, indicating not only availability but also increasing real-world use (Sahamati, 2024; CGAP, 2025).

However, one cannot hope to achieve "true open banking" by just having a working flow of payment channels. The maintenance of security of payment channels, oversight of all stakeholders and reliability should be governed at a scale. An open banking report given by Basel Committee underlines the importance of all the above criteria as more and more different stakeholders take part and connect through API based connections, the attack on the system will be increased (Basel Committee on Banking Supervision, 2019).

If seen from this standpoint, India still has a lot of distance to cover in areas such as participation and customer experience. Participation does not include heightened financial inclusion alone but also uniform participation of financial institutions such as banks, NBFCs (Non-Banking Financial Institutions) and MFIs (Micro Finance Institutions). Further, customer experience should be seamless and secure as well. There should also be a customer grievance addressal mechanism to solve problems faced by stakeholders. Trust is an important factor in banking, and hence should not be compromised. Interoperability must extend beyond connectivity into consistent performance and service quality. Finally, sustainable economics is really necessary so that firms invest continuously in security and customer support.

5. Are major payment apps making money in India?

This question is best answered by separating payments as a feature from payments as a business. India's UPI ecosystem achieved scale partly because of policy decisions that made every day digital payments inexpensive for users and, in many scenarios, free for merchants through a zero-MDR environment. Analysts from financial industry emphasise that since MDR is unavailable to institutions, as it limits their revenue directly and tend to look out for other ways to offset their losses. In some cases, absorbing the operational costs incurred is the only possible option for them (PwC, 2023; CDPI, 2024).

Because the core payment transaction does not reliably generate meaningful margin, payment apps typically work like distribution

platforms. The app becomes the front door, while the business model depends on adjacent services such as merchant solutions, credit distribution, wealth products, or subscription and value-added offerings. Studies of payment technology evolution in India highlight that firms expanded beyond basic payments into wider ecosystems, which is consistent with a platform strategy rather than a transaction-fee strategy (SAGE paymentech study, 2024).

Public reporting also shows that profitability is possible but is uneven and often depends on accounting definitions. For example, PhonePe indicates a move toward profitability (notably described as profit before certain ESOP-related costs in some narratives), while Paytm has reported improving financial outcomes including a profitable quarter in 2025 as per widely covered results reporting (Reuters, 2025; Times of India, 2025).

It is therefore more accurate to say that these apps can “make money,” but not mainly because UPI payments themselves are profitable. They make money when they succeed in converting scale into monetizable financial and merchant services, and when costs are controlled enough to let those revenues translate into profit.

6. Profit viability and its link to open banking

The long-term viability of payment apps in India is tightly connected to open banking as it improves the economics of the products that sit around payments. When customers can share verified financial information with consent, providers can offer credit and financial services with more accurate risk assessment and lower operational friction. This affects profitability in three ways.

First, consent-based data access can lead to quality credit growth. Underwriting can be quicker and more true to nature as customer does not try to hide their data. This can lead to more sustainable credit growth for banks and financial institutions which in turn can convert into high value profits as these financial services tend to be high margin services compared to profits from NII (Net Interest Income) and other services. Second, open banking also helps to find the exact service needed by the customer. Instead of institutions trying to fit in the customer to a particular product, customer can avail the service voluntarily and banks will also be in a position to approve considering the financial history received from the customer with their consent. Third, open banking mainly can help in reducing the time taken to avail the banking service by reducing paperwork costs and red-tapism. Physical papers are prone to getting lost, damaged or manipulated. Some experts even argue that open banking creates new digital business

models that mainly rely on data portability and interoperability (Ramdani et al., 2020).

In India, all these benefits of open banking totally align with the AA and DEPA approach. Open banking should not only be about convenience alone, but also converting financial data into usable financial assets at a relatively low cost (NITI Aayog, 2020; Carrière-Swallow et al., 2021).

7. RBI's role in shaping open banking

The role of RBI is paramount because of the trajectory of open banking growth in India. Open banking in India as discussed has not been purely market driven as in the case of other countries. The central bank monitors each and every stakeholder who participates in this workflow. The RBI has the last say in finalising which regulation determines who may participate, how consent is governed, and what consumer safeguards apply. It also can restrict certain AAs from entering into certain payment channels and reduce conflict of interest (Rao, 2021).

From an ecosystem standpoint, RBI's influence can be understood across three layers. The first is market design, where RBI enables new regulated intermediaries such as AAs and sets the conditions of operation. The second is risk governance, where RBI signals and enforces expectations on fraud mitigation, operational resilience, and conduct. The third is consumer trust, where dispute resolution and accountability standards become the difference between "available technology" and "everyday adoption." Global open banking governance discussions repeatedly stress that the regulator's job is not only to enable connectivity but to ensure that systemic risk does not rise faster than innovation benefits (Basel Committee on Banking Supervision, 2019; World Bank, 2022).

In short, RBI is likely to remain the anchor institution that transforms open banking from an innovation narrative into a stable public-trust system.

8. Is FDI needed to fast-track open banking in India?

Foreign Direct Investment (FDI) can accelerate open banking, but it is not the fundamental requirement. Capital helps to build secure technology, scale compliance, expand customer support, and absorb long payback periods in markets where payments are low-margin. This is especially relevant in a zero-MDR context where "growth first" strategies can become expensive. Industry experts have long pointed out that after tracking mobile payments, profitability in the near long term is hard and patient capital is absolutely required in order to make money in the long run (KPMG, 2019).

Other problems faced by open banking adoption are trust among stakeholders, dispute addressal mechanisms in place and data quality. The IMF's analysis of India's approach highlights that governance and standardised infrastructure are central to the model (Carrière-Swallow et al., 2021).

Hence in conclusion FDI can be a useful accelerator for capability building and scale, but India can still progress rapidly through domestic investment if governance, standards, and sustainable business models are well aligned. FDI is therefore supportive rather than strictly "needed," unless policymakers define specific capability gaps that external capital and expertise can uniquely fill.

9. The future of open banking in India

India's future is likely to be described less as "open banking" and more as open finance, because the consent-based model naturally expands from banking data to a broader range of financial relationships. DEPA was designed as a consent architecture not limited to banking, and finance is simply the sector where it has advanced furthest (NITI Aayog, 2020).

Over the next few years, the most meaningful evolution is expected in everyday product journeys. If AA becomes a default mechanism for credit, wealth onboarding, and MSME finance, then open banking will shift from an infrastructure achievement to a consumer-visible experience. At the same time, this expansion will raise the importance of consumer protection, fraud prevention, and predictable liability allocation. Reports on open banking suggest that as more adoption of open banking takes place there needs to be more operational resilience and more stringent oversight of transactions become very essential (Basel Committee on Banking Supervision, 2019; World Bank, 2022).

Finally, making business sustainability sense will be important as businesses will treat UPI as an entry layer while profitability will depend on increasing transactions and creating other value-added services.

10. Conclusion

The growth of open banking in India has shown that every country has to follow the same approach to attain financial openness. India has laid down a strong foundation in prioritizing consent-based data sharing and interoperable payments. Now the step is to put systems in place for scalability and have consistent regulatory oversight. The success of UPI has paved a pathway for public confidence on government regulated banking channels. AA and DEPA frameworks have begun to address the

infrastructure requirement of open banking in the short term. The analysis in this paper shows that open banking in India has already delivered meaningful benefits, particularly in reducing friction in financial transactions and expanding the potential for data-informed lending and financial services. However, the transition toward a fully mature open banking environment remains incomplete. Uniform participation across institutions, consistent service quality, and robust grievance redress mechanisms will be essential if open banking is to become an everyday experience rather than a niche capability.

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