

CREDIT TO THE LAST MILE ACCOUNT AGGREGATORS & DATA-DRIVEN INCLUSIVITY

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CONTRIBUTOR

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**JAPAN
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Introduction

Across the globe, technology-driven financial innovations are swiftly ushering in an era of democratization of data. There is a palpable shift of power and agency from data holders to actual data owners, who are utilizing their financial information for accessing better fintech solutions. India's advances in digital public infrastructure have consistently focused on financial inclusion and the correction of information asymmetry as key priorities.

The immense possibilities thrown open by IndiaStack, the world's largest repository of open APIs (Application Programming Interfaces), are transforming the digital finance ecosystem in India. One of the most far-reaching initiatives is the Account Aggregator (AA) model, which went live in 2021 and is fast expanding its ambit and network. Seen in the larger global context of Open Banking, the AA model promises to unlock the full potential of financial data as a tool for inclusion and empowerment of Micro, Small & Medium Enterprises (MSMEs) as well as individuals, who have hitherto been under-served or unserved.



This piece looks at the AA model of India in the larger global context of open banking and the national context of the Data Empowerment and Protection Architecture (DEPA). It seeks to demonstrate the relevance of AAs through the use case of MSMEs and their credit linkages.

The Global Scenario

There have been a number of initiatives in different parts of the world to unlock the transformative potential of financial data aggregation through data sharing APIs and innovative fintech solutions. Some of these models have been regulatory driven, like the Open Banking Initiative in the United Kingdom, the PSP2 (Revised Payment Services Directive) in the European Union, the Singapore Financial Data Exchange (SGFinDex) and the PIX payment system of Brazil. Other initiatives have been primarily market driven, like the Financial Data Exchange (FDX) in U.S.A, the Strategic Development & Management Bureau in Japan, the Open Banking Service (OBS) in South Korea and the Open Banking and Digital Identity (OBDI) in New Zealand.

Global Open Banking Report

■ Developed-Regulatory Driven ■ Developing - Market Driven ■ Developing - Regulatory Driven ■ Hybrid

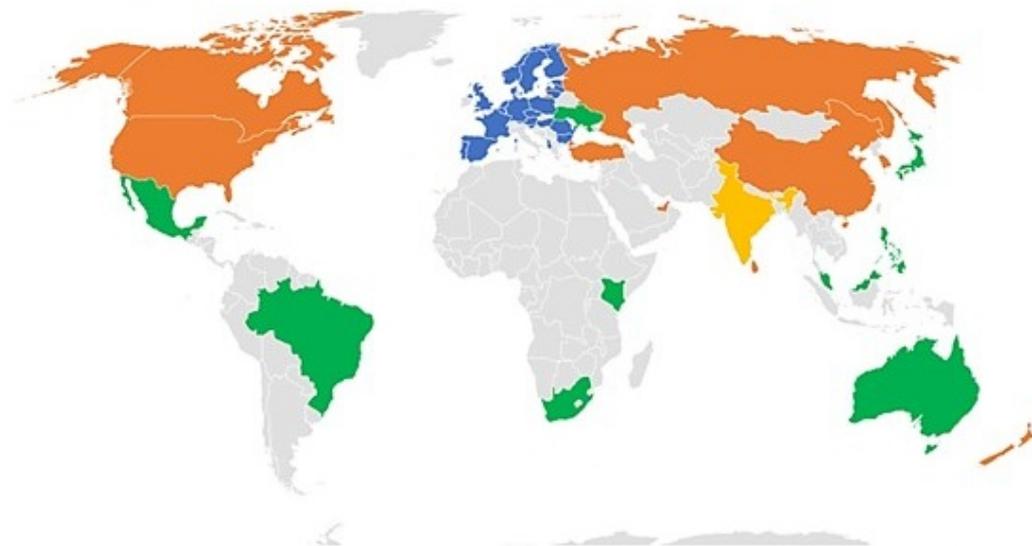


Figure 1 (Source: Open Banking Tracker, Penser Analysis, <https://www.penser.co.uk/>)

The main parameters that determine the contours of Open Banking initiatives in specific country contexts are:

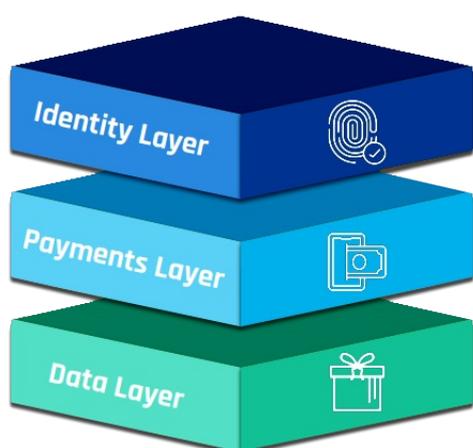
1. The extent of government regulatory interventions for open banking, ranging from an incentive structure on one hand to mandatory registration of financial entities on the other
2. The market forces that drive innovation and integration in fintech solutions
3. The levels of competition that exist between financial sector players
4. The openness or insularity of citizens to data use and data privacy
5. The extent of digital network penetration and usage

The global experience with Open Banking so far has been a mixed story. While regulatory driven models have the advantage of standardized API frameworks being used by different financial entities that are part of the ecosystem, they limit the diversification and customization of open financial services and products to some extent. On the other hand, market driven models often face the challenge of interoperability, with bilateral agreements for data sharing between financial entities shaping the implementation path. The focus of Open Banking has largely been on offering a bouquet of competing financial products and services, rather than on data empowerment or wider inclusion.

Drawing lessons from the global experience, the AA model in India combines features of both regulatory frameworks and market innovations in API to create a unique hybrid mode of financial data sharing premised on owner consent.

Synergistic Rise Of The AA Model In India

The ever-evolving digital finance landscape created by IndiaStack has built a robust network between banks, non-banking financial institutions, regulators, fintechs and customers. The AA model synergises with this network to activate the data layer of IndiaStack, leveraging the proven strengths of the identity layer of Aadhar (the unique biometric digital identity) and payment layer of the digital Unified Payments Interface (UPI) to usher in a whole new paradigm of consent-based financial information sharing. As compared to similar fintech innovations around the world that seek to harness the power of financial data, **the AA model is the first ever to be primarily targeted at data empowerment through democratizing the use of data by actual owners.**



Identity Layer

Giving every resident a unique id and enabling them to prove "I am who I claim to be"

Payments Layer

Allowing anyone to pay anyone else! interoperable, fast and cheap - not just smartphones

Data Empowerment

To enable secure sharing of data

Figure 2 (Source: iSPIRT – Indian Software Product Industry Round Table, <https://ispirt.in/>)

The initial framework for AAs was laid down by the Reserve Bank of India (RBI), the Central Bank and banking regulator of the country. RBI issued the Master Direction for Account Aggregators on September 2, 2016 to operationalize Account Aggregators as non-banking financial companies that enable customers to digitally access their financial data from any regulated financial institution and share it with other financial service providers.

The first NBFC-AA license was issued by RBI in 2019 and AAs went live on September 21, 2021. By July 2022, all 12 public sector banks in India were on-boarded. The RBI also sought to facilitate standardization and interoperability of AA technology by setting up the Reserve Bank Information Technology Pvt. Ltd. (ReBIT) to develop and offer a set of technical standards for open APIs.

Today, there are 14 licensed AAs that connect to 307 entities who are part of the AA ecosystem, including banks, insurance companies, non-banking financial companies, pension fund managers, portfolio managers, registered investment advisors and stock brokers.

Over 20 different types of financial information ranging from bank accounts and mutual fund investments to GST (Goods & Services Tax) data, pension fund and insurance policies can be shared seamlessly through AAs. The rate at which the AA model is gaining traction in India is evident from Figures 3 and 4 – **within 3 years of its inception, over 39.25 million accounts have been linked and over 40.32 million consent requests of have been successfully fulfilled by sharing financial data.**

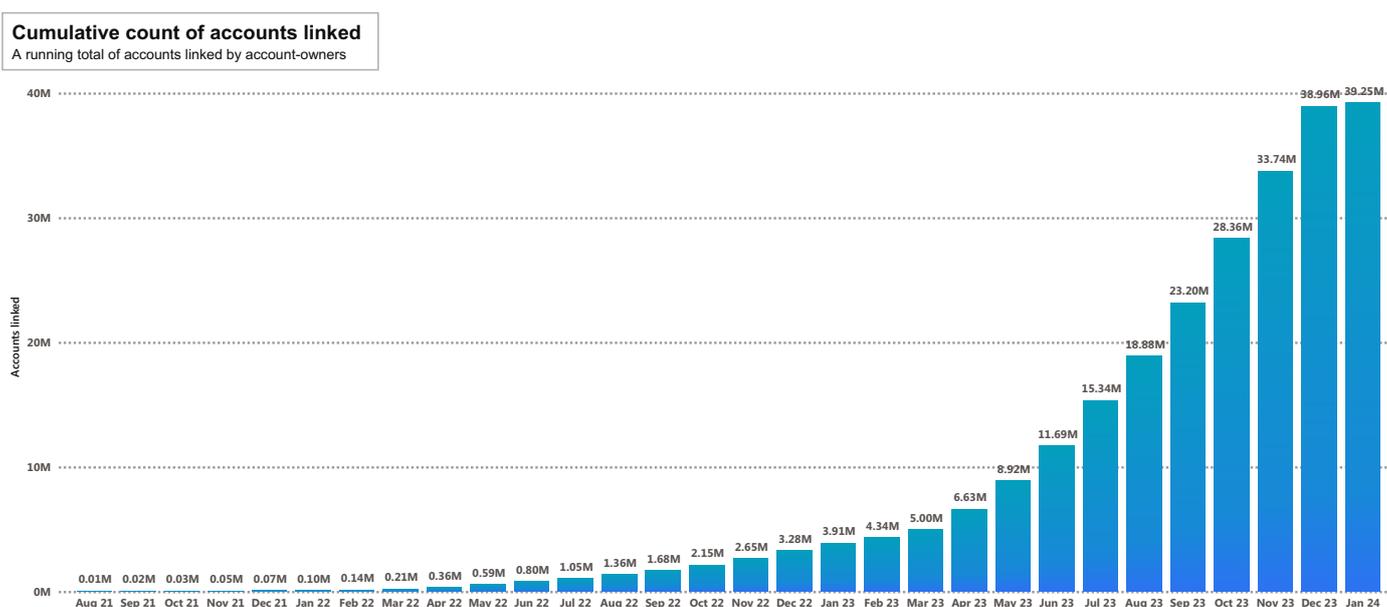


Figure 3 (Source: Sahamati AA Ecosystem Performance Dashboard, <https://sahamati.org.in/>)

Cumulative count of consent request successfully fulfilled
Count of consent requests for which data has been successfully delivered, as of the end of every calendar month.

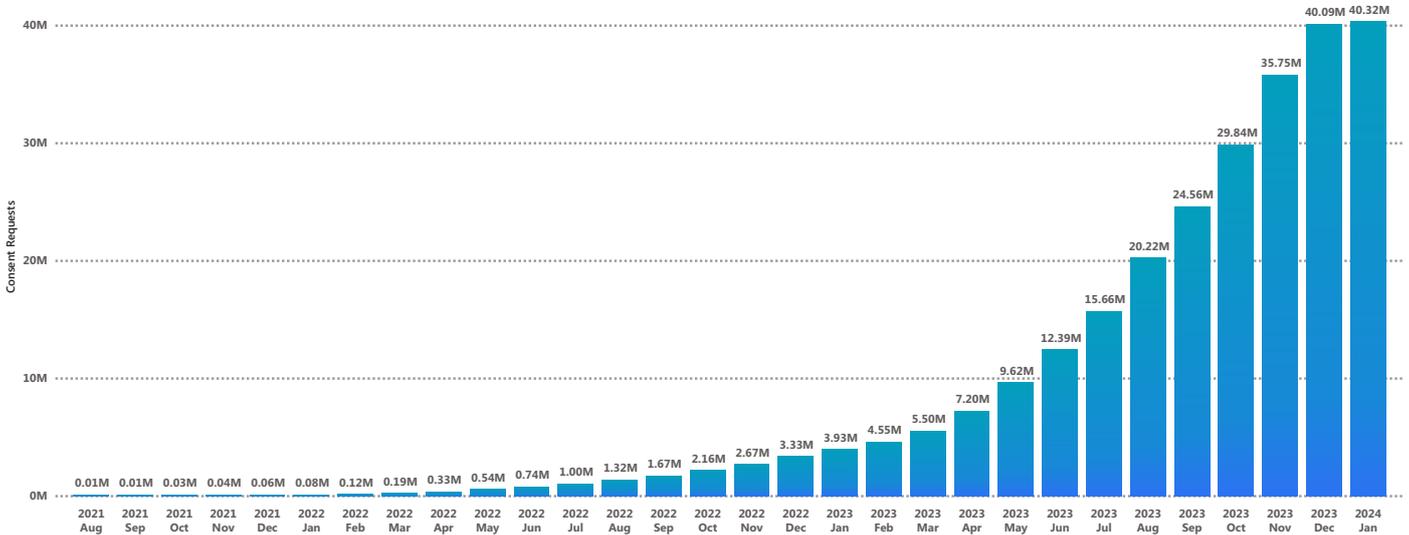


Figure 4 (Sahamati AA Ecosystem Performance Dashboard, <https://sahamati.org.in/>)

The AA Ecosystem

The four principal actors in the AA ecosystem are :

- The Customer:** The individual or business who gives the consent for sharing of his/her/their financial data.
- The Financial Information Provider (FIP):** The banking/non-banking financial entity that holds the financial data of the customer
- The Account Aggregator (AA):** The non-banking financial company that is licensed to transmit encrypted financial data of the customer from the FIP to the FIU
- The Financial Information User (FIU):** The financial service providing entity that receives the encrypted financial data of the customer from the AA

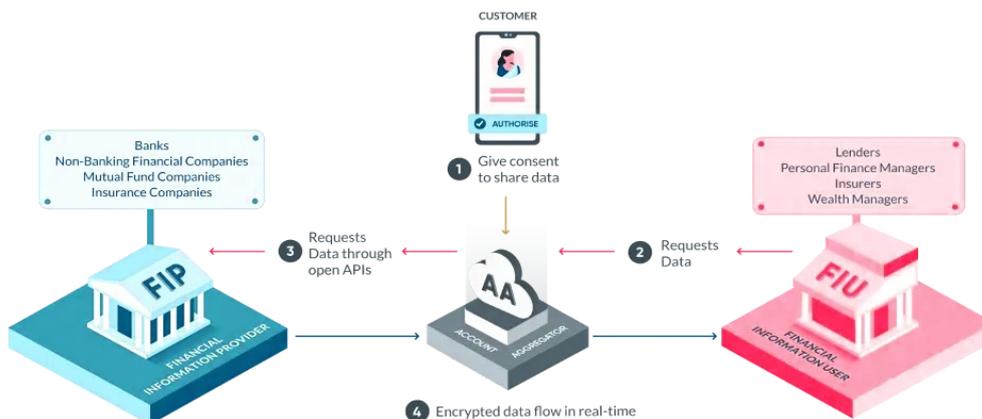


Figure 5 (Source: Sahamati, <https://sahamati.org.in/>)

AAs As Agents Of Data Empowerment

The fundamental premise of the AA model is that the actual owners of data should be empowered to use their own data to access better financial services and products seamlessly, while protecting it from unauthorized misuse. **The consent of the customer is the main driving force of the AA ecosystem.** Once the customer gives consent on the AA app to share his/her/their financial data, the AA steps in as a consent manager to access the encrypted data held by the FIP and to transmit it to the FIU. The AA offers an end-to-end digital solution to the customer, as it fully replaces physical documentation as a means to prove financial standing or credit-worthiness. Furthermore, it aggregates the financial transactions and data that are held by multiple FIPs to give a real-time, consolidated picture of the customer's financial data to the FIUs. This enables the FIUs to significantly cut down processing and approval timelines and to offer quick and customized financial services to the customer. All through this process, **the AA remains data-blind and has no access to the encrypted data, nor can it store or sell customer data.**

To appreciate the full potential of the AA model, it must be seen within the larger context of the Data Empowerment and Protection Architecture (DEPA), a critical component of India's digital transformation vision. DEPA is a data governance framework that is premised on the two principles of data portability and data interoperability. With a whole-of-government perspective combined with the drive of private enterprise, **it sees personal data as an economic resource that can be controlled and used by individual and business owners to access better opportunities by sharing it between service providers as per their own choice and consent.**

The AA ecosystem puts DEPA to practice in the financial sector and operationalizes the seamless and secure flow of financial data based on owner consent to economically empower those who have been financially excluded by conventional institutional and industry practices.

The Data Empowerment and Protection Architecture

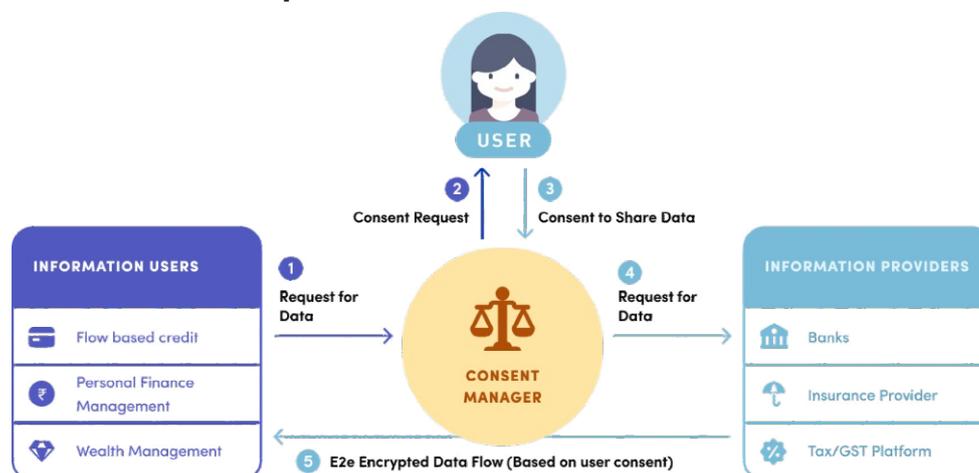


Figure 6 (Source: Niti Aayog, <https://www.niti.gov.in/>)

AAs As Drivers Of Financial Inclusion: The MSME Use Case

With over 63.4 million enterprises falling within its ambit, MSMEs form a crucial part of the Indian economy. They account for 45% of the manufacturing output and 29.2% of India's GDP. As the second largest employment generating sector in the country, MSMEs employ over 120 million people. In terms of export output, they constitute 43.6% of India's total exports. MSMEs have been an integral part of India's digital payments revolution, with 72% of payments being done digitally. **As on December 31, 2022, MSMEs have made a whopping 90 billion digital transactions worth US \$ 24.73 trillion.**

However, MSMEs continue to remain grossly underserved by the formal credit system in India. As per IFC and RBI estimates, the credit gap faced by MSMEs amounts to US \$ 342.5 billion. This is a severe drag on the potential of MSMEs to be growth agents. The main impediment that MSMEs face in accessing credit is the lack of adequate documentation and asset based collaterals to prove their credit-worthiness. Despite their active use of digital payments systems, data pertaining to their financial transactions are scattered among different entities.

“ The impact of AAs on facilitating credit to MSMEs is already visible - more than 50% of the US \$ 783.2 million worth loans disbursed so far using AAs has been to MSMEs, as per the estimates of Sahamati, a not-for-profit industry collective of AAs, FIUs and FIPs. ”

On the part of the Loan Service Provider (LSP), lending to MSMEs is economically unviable when it involves high cost and time inputs for identifying potential customers, verifying documents and receiving the repayment instalments. Even when credit is sanctioned for MSMEs, LSPs are compelled to cover risks by mandating higher interest rates and stricter repayment schedules. When MSMEs fail to repay loans with such adverse terms and conditions, it feeds back into a vicious cycle of reducing their credit-worthiness. Together, these factors have pushed MSMEs to rely heavily on exploitative informal lending.

To serve the credit needs of MSMEs adequately, a shift requires to be made from asset based lending to cash-flow based lending, as cash-flows realistically reflect their financial health.

AAs can play a pivotal role in effecting this transition. By consolidating the financial data of MSMEs from different sources like digital payments, e-commerce transactions, GST payments and Income Tax returns, AAs can share the digital financial profile of an MSME with the FIPs. FIPs can easily assess the credit-worthiness of MSMEs and this reduces the processing cost and time for extending credit to MSMEs. A virtuous cycle of MSMEs making prompt repayments and enhancing their credit-worthiness is generated that can fuel their growth through data empowerment. The impact of AAs on facilitating credit to MSMEs is already visible - more than 50% of the US \$ 783.2 million worth loans disbursed so far using AAs has been to MSMEs, as per the estimates of Sahamati, a not-for-profit industry collective of AAs, FIUs and FIPs.

The shift from asset based lending to cash-flow based lending powered by AAs is envisaged as the fulcrum of the Open Credit Enablement Network (OCEN) that was launched in 2020 in India.

The main objective of OCEN is to standardize and simplify credit access to the borrower from multiple lenders by democratizing the data pertaining to the borrower's credit-worthiness. It also aims at encouraging embedded and customized credit services and products that could be integrated with existing payment platforms and e-commerce marketplaces. The progress of onboarding stakeholders onto OCEN has been pretty slow so far.

As the AA model acquires more operational strength and visibility, it will help OCEN to gain traction and become a game-changer in financial inclusion through stronger credit linkages.

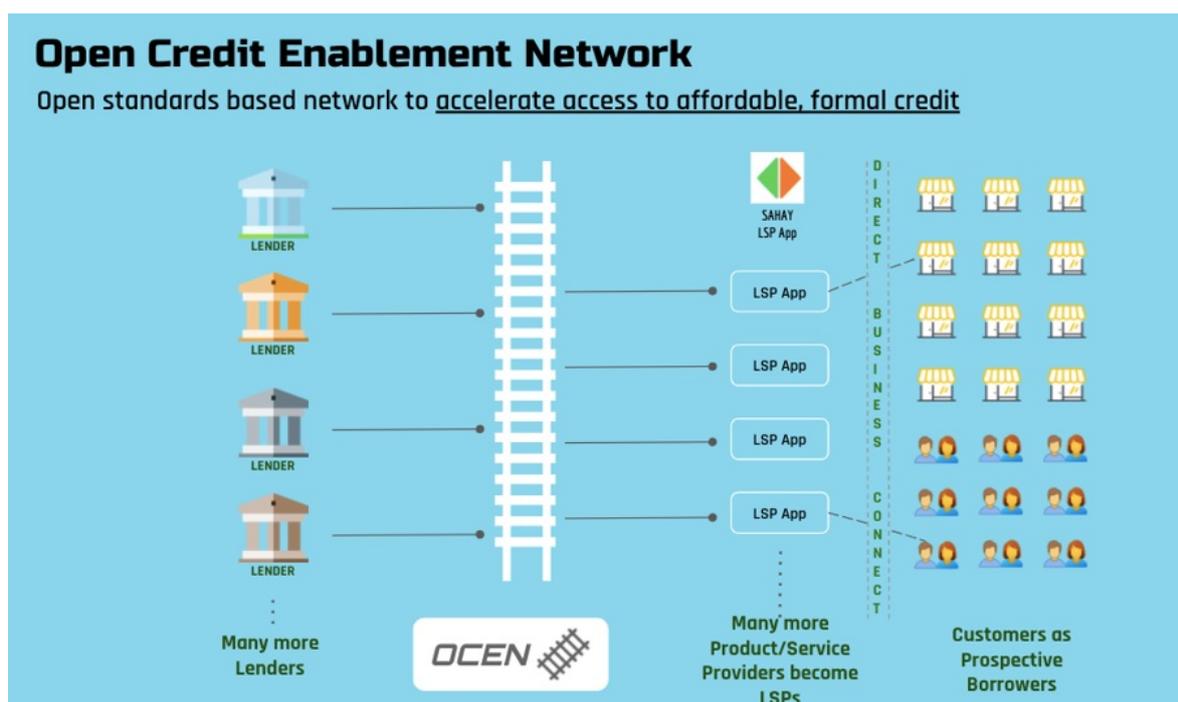


Figure 7 (Source: iSPIRT – Indian Software Product Industry Round Table, <https://ispirt.in/>)

Conclusion

The emergence of AAs as a dynamic new actor in the digital finance landscape has galvanized India's continued quest for wider financial inclusion. **Together with the other layers of IndiaStack, AAs offer the possibility of an end-to-end consent driven digital credit cycle that harnesses the latent potential of financial data to empower individuals and MSMEs through credit availability, even while preserving the privacy of their data.** As their network expands to cover larger swathes of users and volumes of data, AAs will face the challenge of ensuring data security and maintaining data inter-operability. Their role in activating the OCEN channels and expanding their reach would be crucial in determining the future trajectory of digital finance in India. Depending on the success of AAs in the financial sector, open data exchange frameworks based on DEPA will be introduced in other sectors like telecom, healthcare and skill development.

The Indian experience with democratization of financial data as a tool for empowerment will hold valuable lessons for other countries, especially those of the Global South that have a significant presence of MSMEs. The hybrid nature of AAs in India, with an optimal mix of market driven fintech innovations and government support, would be suitable for countries with similar socio-economic diversities that demand a modular and customizable approach to financial inclusion, as against a one-size-fits-all meta strategy.



*I write about innovations
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The author is Joint Secretary to the Government of India and a member of the Indian Administrative Service.

Views expressed in this article are personal.