



Sahamati Strategy Team

Expected Evolution of Account Aggregator Ecosystem: 2023-27

Key trends that are expected to drive growth and shape the
Account Aggregator Ecosystem

November 25th, 2022

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Executive Summary

Account Aggregator (AA) Framework has been the latest addition to the India Stack, introduced as a consent layer to strengthen its data stack. In 2016, RBI, with joint FSDC consultations, released the Master guidelines for a new class of NBFC entities called Account Aggregators, mandated to operate as a consent manager for the citizens for sharing data. AA seeks to empower the citizens by enabling them to share their data only with their explicit consent captured in an electronic consent framework. The data can be shared in a digital format on a real-time basis, directly from the existing financial services provider (FIPs) of the citizens to the potential financial services provider (FIUs) of the citizens.

Over the last year, since the AA Ecosystem was officially launched in September 2021, 23 banks and 3 life insurance companies are live as FIPs on AA, and 78 entities, registered and regulated with one of the four FSRs (RBI, SEBI, IRDAI, PFRDA) are live as FIUs on AA. More than 1.1 billion accounts in the form of singly held savings accounts and sole proprietorship current accounts have been enabled (available to be shared through AAs with customer consent). Further, there are 6 operational AAs and another 9 in-principle AAs waiting to get their operating licence from RBI. As on 31st Oct 2022, more than 2.05 million customers have used AAs to give consent and successfully shared data from their existing FIP to potential FIU.

The banking sector- banks and NBFCs has been at the forefront of adopting AA, with retail lending and MSME lending use cases constituting around 74 percent of the cumulative successful consents given on AA resulting in data transfers. The securities sector has been the second largest user of AA, constituting 25 percent of the data transfers for personal finance management and Demat account opening. Life Insurance companies have recently initiated AA implementation for calculating income-based eligibility for applicants looking to purchase a term insurance policy and are evaluating other use cases as well. In the pension sector, Points of Presence (POP) intermediaries registered with SEBI access bank statements through AAs to offer pension plans for customers.

As per Sahamati's analysis, the potential transfers of bank account statements through AA for varied use cases across the four financial sectors are estimated to reach an annual transaction volume of 1 billion by 2025 and 5 billion by 2027. With newer Financial Information types being made available on AA, growth projections have strong upside potential, resulting in volumes significantly higher than the 5 billion data transactions projected for 2027. While accessing bank account statements for underwriting applications for credit is expected to continue being the prominent use case for AA, the usability of AA in other sectors is also expected to grow over the next five years. By the year 2027, accessing bank account statements for underwriting and monitoring use cases for banks and NBFCs is expected to constitute 58 percent of the total data transactions. Another 41 percent is expected to be contributed by the securities market primarily for wealth advisory, personal finance management services and Demat account opening. The insurance sector is expected to have limited usage for bank account data through AA.

However, usage of AA in insurance is expected to grow once existing insurance policies of other insurance providers and income tax returns data are available through AA.

Early adopters of the Ecosystem, primarily banks and NBFCs, have reported initial efficiency gains despite a relatively low coverage of FIPs when they started. The reported benefits have resulted in lower drop-offs for optimised journeys, higher conversion rates, nil fraud rates, reduced operating costs, and lower default rates, all resulting in a net positive impact on profitability. As the Ecosystem grows and stabilises, sustained higher efficiency gains could translate into more cost efficient and viable business models for lenders as required to cater to the untapped customer segments (small ticket size with high volumes), thus unlocking massive value for the citizens as well as for the financial sector.

AA Framework is seen as a digital public good with immense potential to ease access to financial services and contribute to the country's financial inclusion goals by reaching out to under-served customer segments such as MSMEs, low-income, and rural/Tier 1/tier 2 citizens. Continued support from policymakers and regulators is the most critical enabler to ensure that the AA Framework scales up to its full potential. Further, widening of the base of FIPs to include all large entities from the four financial sectors, as well as onboarding government databases such as GSTN, CBDT, and EPFO will enable financial services providers to access varied information through a single channel, thus incentivizing incumbents to participate in the Ecosystem with total commitment. Further, addressing a few ecosystem-level issues around recognizing the shared techno-legal services and promoting sound data governance practices will go a long way in building trust around the Ecosystem. Last but not least, a nationwide customer awareness and education campaign sponsored by the policymakers, regulators, and industry participants can be instrumental in spurring customer adoption and helping the ecosystem scale deliver to its full potential of being the "UPI of data".

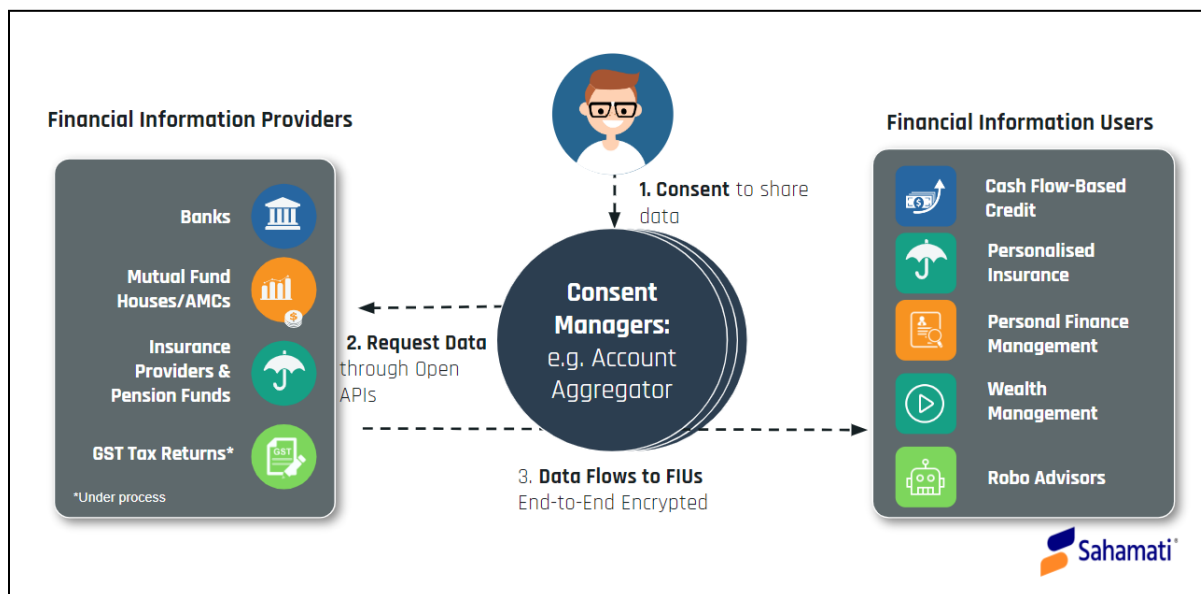
India is in the midst of a digital revolution that has opened up boundless opportunities for offering data-driven innovative services to consumers, simultaneously putting the onus on policymakers and regulators to maintain high data privacy, security, and governance standards. When introduced, the much-awaited Data Protection Bill is expected to strengthen the privacy framework in the country. Meanwhile, the regulator has rolled out the AA Framework to promote data empowerment for citizens. To supplement the legal and regulatory framework, the Ecosystem has also initiated self-driven efforts to strengthen data governance. The Ecosystem participants have been working with Sahamati to put in place standards and codes of conduct to deliver high levels of technical delivery, achieve efficient interoperability, and promote community guidelines/code of conduct.

History and Evolution of Account Aggregator Ecosystem

India Stack¹ has been globally recognized as a revolutionary digital stack that has digitised payments, identity, and data through several digital goods such as Aadhaar, UPI, AePS, CKYC, and several others. However, increasing digitization also led to a phenomenal expansion of the consumers' digital footprints scattered across a large number of service providers, government databases, and digital platforms. While on the one hand, the digital data footprints of the consumers increase their vulnerability to potential data breaches and misuses; on the other hand, it paves the way for building and providing innovative, data-driven services for the consumers. Increasing digitization led the policy makers to conceptualise a techno-legal framework that targets to strengthen the data governance framework and build up the consent layer of the India Stack.

In 2016, RBI released the guidelines for Account Aggregators (AA), a new category of NBFCs (Non Banking Financial Companies) with a mandate to operate as consent managers for the citizens. The AA Framework came out of joint consultations held at FSDC (Financial Stability and Development Council) with representation from RBI, SEBI, IRDAI, and PFRDA. Subsequently, ReBIT (a 100% subsidiary of RBI) released the technical specifications with standard protocols for APIs, data schemas, and security standards. At the same time, the MeitY (Ministry of Electronics and Information Technology) set out the electronic consent framework that was later adopted for the AA Framework.

Pictorial Description of the Account Aggregator Ecosystem



¹ For more details, visit <https://indiastack.org>

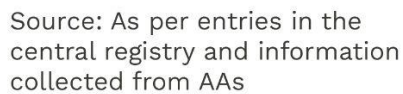
The Account Aggregator Framework has four categories of participants:

- a) Citizens, as the data principal, are the focal point of the framework.
- b) Account Aggregators (AAs) as NBFCs licensed by RBI to operate as consent managers for citizens
- c) Financial Information Providers (FIPs), entities that are custodians of data of the citizen by virtue of the citizen holding an account with them or through statutory mandates as in the case of government-owned tax databases
- d) Financial Information Users (FIUs), entities that are registered and regulated by one of the four financial sector regulators (FSRs- RBI, SEBI, IRDA, and PFRDA) and which offer financial services or products to the citizens utilizing their existing available data with FIPs.

Apart from the four core participants, there is a category of participants, popularly known as TSPs (Technology Service Providers), which are outside the regulatory ambit and provide several technical services to the FIPs, FIUs, and AAs, primarily for a) the deployment of AA protocols and flows as per ReBIT norms, b) designing front end journeys for FIUs with AA modules, c) providing data analytics solutions to process the raw data received from FIPs through AAs and d) offering certification, audit services.

Account Aggregator Framework is a digital public good, which holds enormous benefits for citizens and financial services providers. The underlying objective of the AA Framework is to empower the citizens by enabling sharing of their data with their explicit consent and ensure data is portable from their existing financial services providers (FIPs) to their potential financial services providers (FIUs) via a real-time, digital channel. The Account Aggregator Ecosystem dovetails into the larger proposed data privacy framework for the nation that seeks to implement and strengthen data governance across sectors through the use of Electronic Consent Managers. The benefits to the financial services providers come in the form of real-time, tamper-proof, digitized data, thus enabling them to offer digital, cost-effective financial services to customer segments that were typically unviable due to the high cost of processing and servicing.

October
2022



TSP: Technology Service Providers



Current trends and landscape in the Ecosystem

Existing Participants

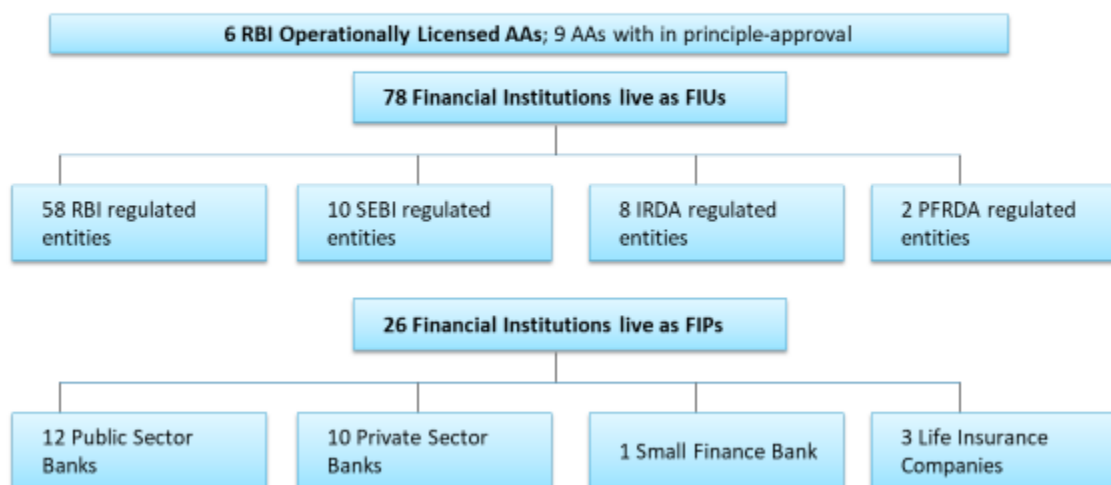
The AA Ecosystem went live in September 2021, with 8 large private sector banks joining the Ecosystem. The last year from 21st Sept to 22nd Sept, has been a defining period for the Ecosystem, with significant growth in the adoption and penetration of AAs. From March 2022-August 2022, all public sector banks joined the AA Ecosystem as a FIP increasing its coverage exponentially, followed by SEBI and PFRDA coming out with enabling circulars for their respective entities to join the AA Ecosystem. Currently, SEBI entities which include the two large depositories- NSDL and CDSL and the large RTAs -on behalf of AMCs as the FIPs have initiated the process of going live on AA as FIPs. Similarly, the three CRAs (Central Record Keeping Agencies) from the pension space are in the process of onboarding AAs as FIPs and FIUs. IRDAI has also been encouraging insurance entities from life insurance, health insurance, and general insurance to onboard AA Ecosystem, both as FIPs and FIUs. Driven by cross-sectoral efforts, 23 banks and 3 life insurance companies are live as FIPs on AA as on 31st Oct 2022.

On the usage front, as of 31st October 2022, 78 entities registered and regulated with one of the four financial sector regulators are live as FIUs on AA. The banking sector leads the user stack, with 58 FIU entities out of 78 (75 percent of all entities) being RBI-regulated entities. From SEBI, 10 entities, including RIAs and brokerages, have onboarded AA as FIUs. In addition, 8 entities regulated by IRDAI have also gone live on AA Framework, experimenting with initial use cases.

As of 31st Oct 2022, there are 6 operational Account Aggregators and another 9 in principle Account Aggregators waiting to get their operational license from RBI. Going forward, the cross-sectoral adoption and coverage of the Ecosystem is expected to increase significantly as regulators from respective sectors have issued enabling circulars and guidance for their respective entities to adopt AA in a time-bound manner.

The chart below highlights the AA Ecosystem as of 31st Oct '22 across the four financial sectors.

AA Ecosystem as on 31st October 2022



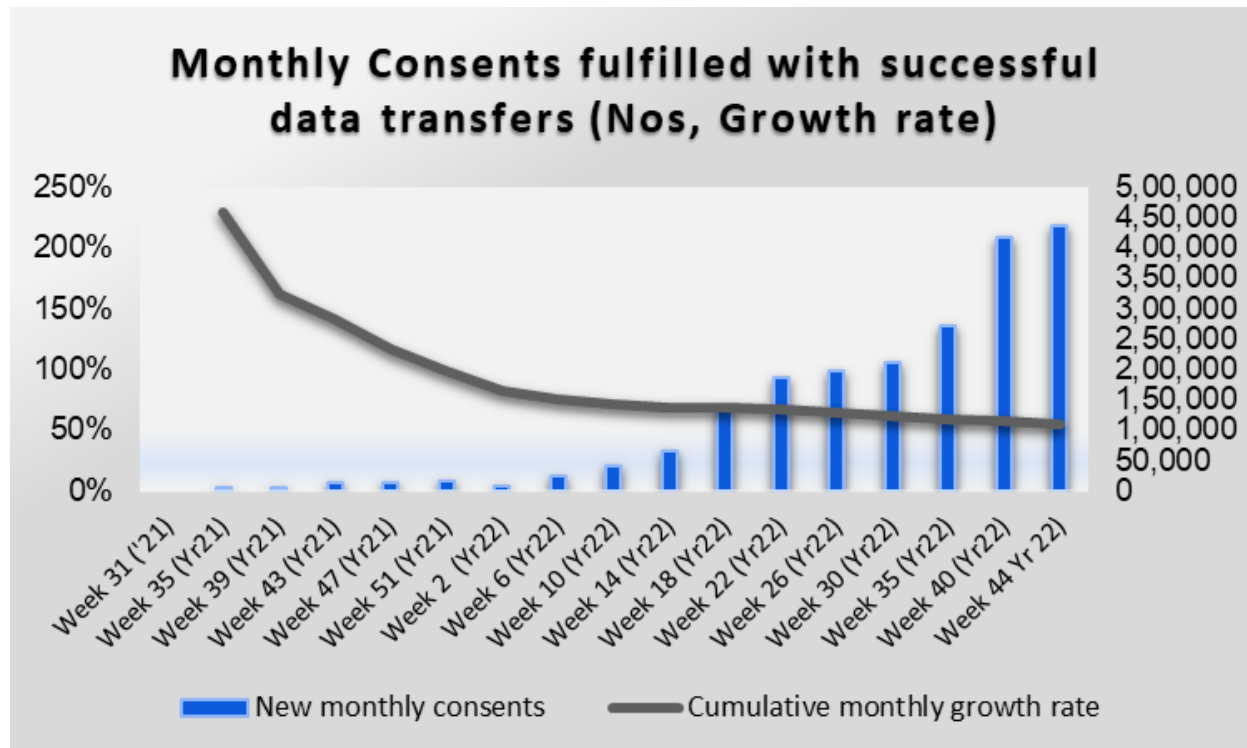
Source: Sahamati's Dashboard

Source: Sahamati Dashboard

Performance Report

The market size for Account Aggregator can be defined in terms of the number of consents successfully fulfilled, resulting in successful data transfers. As of 31st Oct '22, more than 1.1 billion accounts in the form of singly held savings accounts and sole proprietorship current accounts have been enabled (available to be shared through AAs) on AA. Till October 2022, more than 2 million annual cumulative consents have been fulfilled successfully, resulting in data shares from FIPs to FIUs through Account Aggregators. The usage penetration of AA is currently at just 0.2% (at 2 million consents on a base of 1.1 billion enabled accounts). The monthly growth rates² have been stable at 50-60 per cent over the past few months, thus showing sustained progress.

² As calculated from the base month starting from Week 31 of the Year 2021



Source: Sahamati Dashboard

On 23rd Feb 2022, Hon'ble Finance Minister Ms. Nirmala Sitharaman urged the banks to join the AA Ecosystem³ further supported by intensive efforts by the Department of Financial Services to build up the Ecosystem through close supervision and working with all stakeholders. Sahamati has been a close ally in the journey to build the Ecosystem and takes pride in testifying the efforts and commitment of the policymakers, regulators, and industry participants to build a world-class data empowerment framework for its citizens.

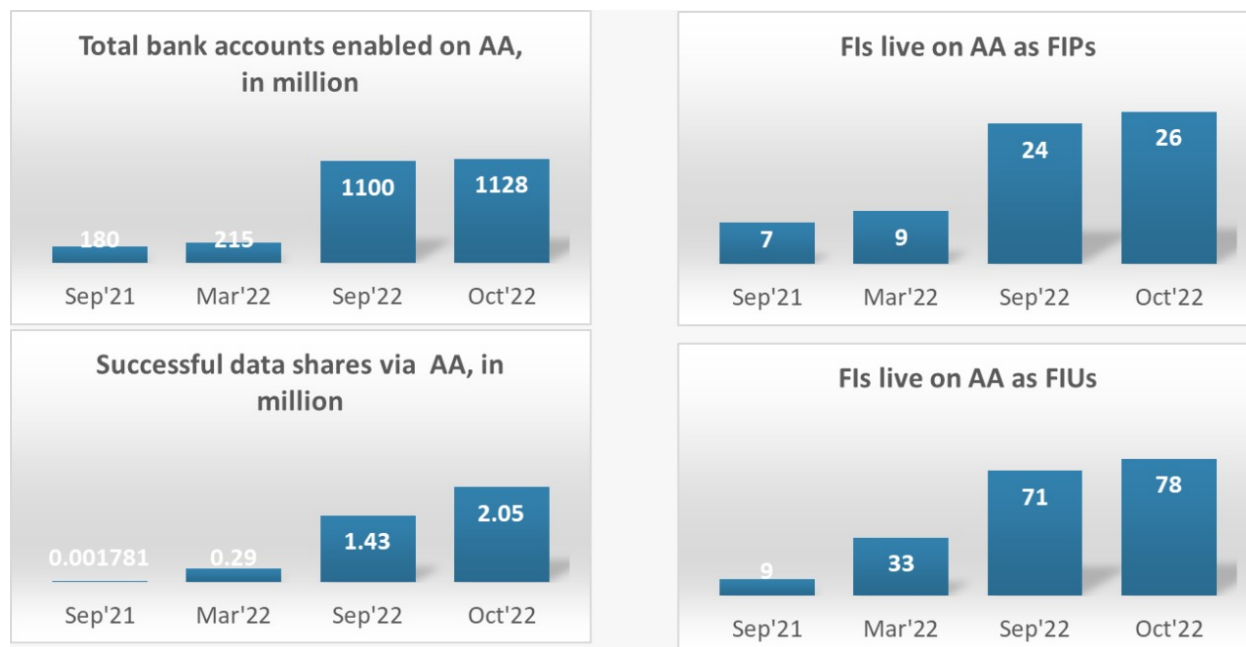
The Budget 2020 announcement by Honourable FM Nirmala Sitharaman to enable an “app-based invoice financing solution” (SAHAY GST) for MSMEs - via cash flow lending without collateral based on their GST invoices. The Sahay GST app offered via SIDBI is a flagship project which seeks to enable cash flow lending for MSMEs using Account Aggregator within OCEN. GST Sahay has been launched recently with bank statement sharing enabled through AA and GST data sharing to be soon enabled through AA.

A closer look at the last year's progress broken into two periods starting from September 2021 to March 2022 and March 2022 to September 2022 highlights that the efforts of the policymakers, regulators, and industry participants have resulted in solid progress, which shall yield rich dividends for the financial sector over the years to come in the form of expansion to newer untapped customer segments, high

³<https://www.thehindubusinessline.com/money-and-banking/global-fintechs-should-seize-the-account-aggregator-growth-opportunities-says-fm-sitharaman/article65913607.ece>

growth, lower operating costs, and lower risk costs. Further, it empowers the citizens to benefit from their own digital financial data footprints in a privacy-preserving manner.

Summary Performance of Account Aggregator Ecosystem (Sept 21 to Oct 22)



Source: Sahamati Dashboard

A continued conducive policy and regulatory environment for broadening the AA Ecosystem, coupled with the tangible benefits of AA flowing in from the early adopters is expected to fuel the next level of growth for the AA Ecosystem.

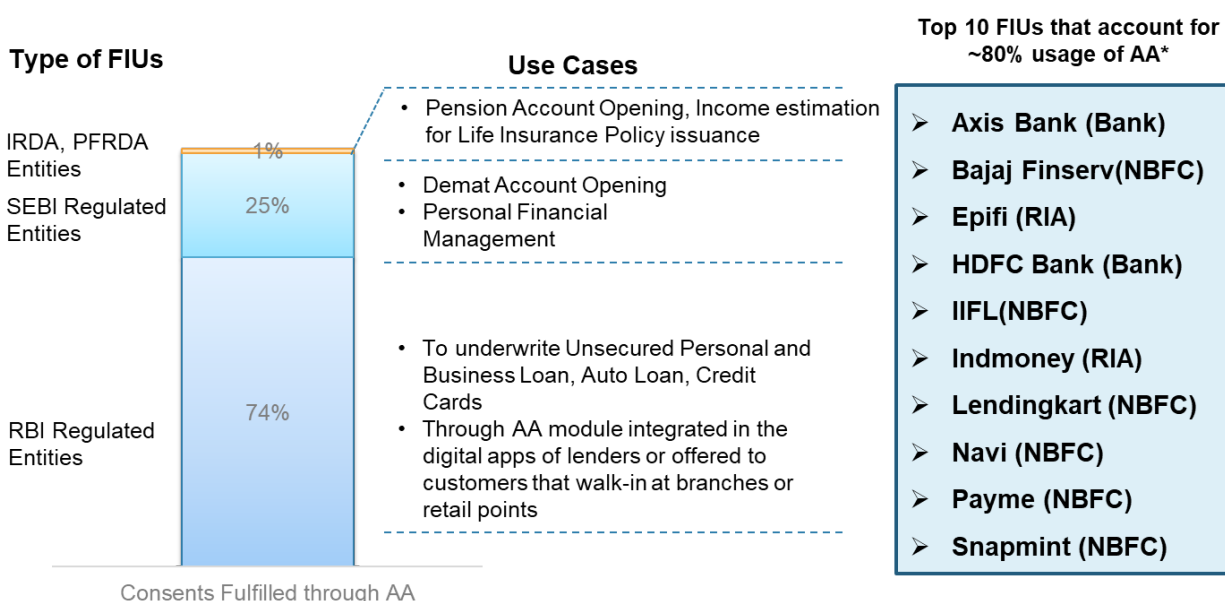
Emerging use cases

A break up of the consents fulfilled through AAs by regulatory type highlights that banks and NBFCs are the prominent users of the framework, sourcing customer-consented data for underwriting various types of loans, including unsecured personal loans, unsecured business loans, invoice financing for MSMEs, auto loans and credit cards. The following emerging category of use cases is the securities market, accessing bank account statements for offering personal finance management, and Demat account opening.

The insurance sector as a user is still in a nascent stage. However, a few entities have begun closed user group testing of AAs in their digital journeys to estimate the income-based eligibility of the applicants to work out an appropriate insurance proposal in terms of sum assured and premiums. Finally, the usage of

AA in the Pension sector is currently limited to PoPs (point of presence), which are the distribution channels using bank account data to offer pension plans for customers.

The chart below analyses the sector and usage-wise break up of cumulative consents fulfilled through AA resulting in successful data transfers as of 31st Oct 2022. The data pertains to sharing of bank account statements (singly held savings accounts and sole proprietorship current accounts), as banks are the only set of entities that have started participating as FIPs.



Source: Market Analysis, Sahamati Dashboard

Early benefits of the Ecosystem

Initial results from early adopters on the benefits of AA are positive and hold significant upside potential for the citizens and the financial sector when operating at scale. A few early benefits from AA implementation, as reported for select journeys and products when optimised have been higher growth in volumes, lower drop-off rates, lower operating costs and reduced fraud rates.

- ➔ As per an industry survey conducted by Sahamati with the top lenders on AA, around Rs 17 billion of loans have been disbursed through AA till date. More than 50 percent of the lending has been for unsecured business loans for MSMEs with ticket sizes of up to Rs 4 lakh, thus establishing the powerful role AAs can play in facilitating financial inclusion and democratisation of credit.

- Banks and NBFCs that have implemented AA have reported zero fraud rates associated with PDF/physical bank statements, which are prone to tampering, with fraud rates reported in the range of 0.5 to 4 percent by various lending institutions. Nil fraud rates have reduced the operational costs of investigating and filtering out a bank statement submitted by a customer. Further, nil fraud rates are also expected to lower the credit costs (lower NPAs-Non Performing Assets) associated with frauds that go undetected before disbursements despite various checks in place.

We have compiled a few testimonials from leading AA users as available in public sources and in our interactions with them.

- As per a press release⁴, Axis Bank's loan disbursements have increased by more than 30 percent month-on-month since going live on the data-sharing platform. The bank offers personal loans, credit cards, auto loans, and small business loans through AA, which has equipped the bank to offer instant, digital and paperless loan solutions to customers. The bank believes that AA is transformational, as it will improve digital product lending and help democratize credit access.
- Snapmint, an NBFC offering retail, and SME loans highlighted the following benefits of implementing AA in our discussion with them:
 - ◆ An increase in revenue of 27 percent with the implementation of AA as 35 -45 percent of customers using AA completed the verification process for a higher credit limit compared to 7-10 percent earlier, resulting in the reported rise in revenues.
 - ◆ Fraud rates due to bank-related data have been zero, thus resulting in lower NPAs and an improved bottom line.
 - ◆ The cost of processing a loan application which was earlier at Rs 440 per case, has come down to Rs 90-110 owing to lesser manual intervention and lower drop-offs.
- Lendingkart, an NBFC offering SME loans and an early adopter of AA, highlighted the following benefits in our discussion with them
 - ◆ Fifty-three percent of eligible customers are adopting AA in digital journey, resulting in an 8 percent higher conversion rate and a 5 percent increase in customer base for AA-enabled banks.
 - ◆ 65 percent potential savings in infrastructure post-depreciation of Non-digital banking services and 38 percent operational efficiency for customers powered by AA in a digital journey
 - ◆ 25 percent improvement in multiple bank account discovery, leading to better underwriting with 66 percent lower cost incurred on fraud detection services. Credit defaults caused by fraudulent or tampered banking information are reduced to zero.

⁴https://www.business-standard.com/article/finance/axis-bank-starts-giving-loans-through-account-aggregator-framework-122092201100_1.html

→ Finbox⁵, one of the first fintech companies offering risk assessment solutions to banks and NBFCs, analyzed six months of data post-AA integration and found that financial statement fraud dropped by 45 percent after the company integrated the AA framework into its risk assessment solution. In the six months preceding FinBox's integration, the overall fraud detected in financial statements was 11.04 percent. The overall percentage of fraudulent uploads has fallen to 6.4 percent. The report further revealed that 90 percent of people who used AA completed their loan applications, almost double the conversion rate observed in net banking and manual PDF upload methods.

In the first year of the launch, AA implementation has demonstrated efficiency gains for the early adopters in the lending domain when incorporated into digital journeys for small-ticket MSME loans and personal loans. The results/value, when extrapolated to the larger credit market, could translate into phenomenal gains for the lending sector.

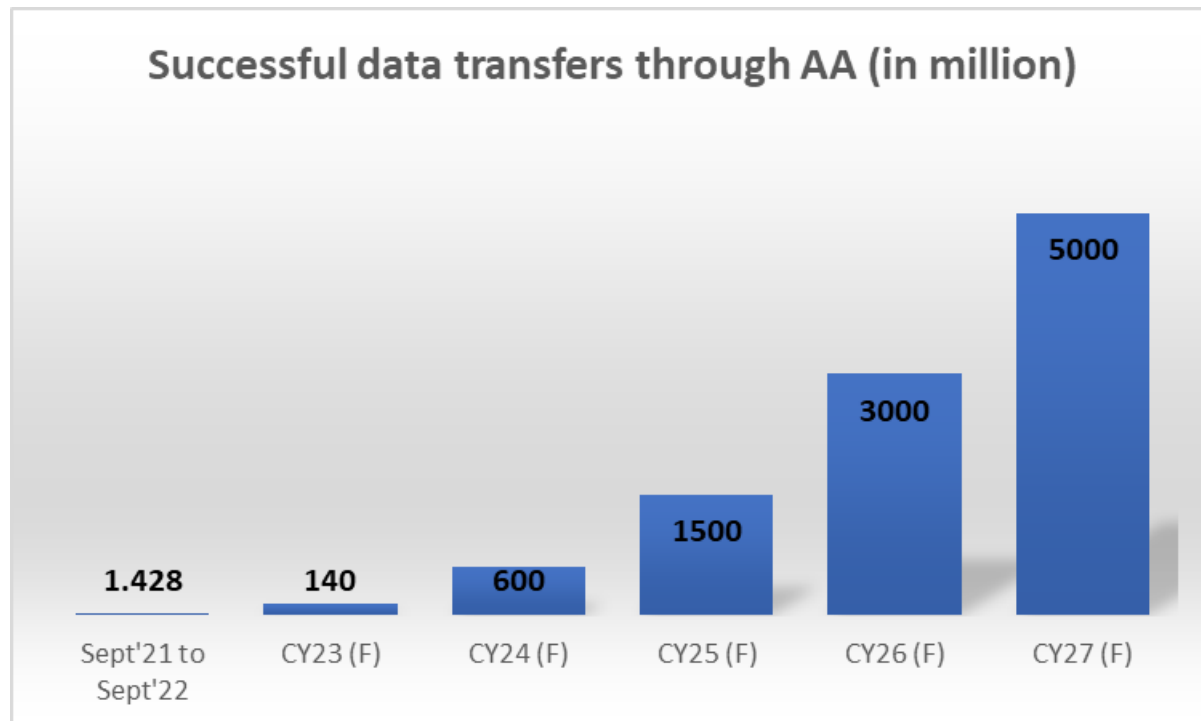
In the next phase of growth, as the Ecosystem scales up, higher efficiency gains would mean improved viability for the lenders to offer innovative products for the relatively untapped customer segments, which could unlock the second big block of value from AA for the ecosystem participants. In addition, another value block in Phase 2 should emerge from the usage of AA for recurring pulls, enabling lenders to develop advanced early warning signals that could significantly improve their collection efficiencies-resulting in lower default rates and higher profitability.

Expected evolution of the Ecosystem

Projected Data Transactions: 2023-2027

As per a market sizing exercise conducted by Sahamati based on an assessment of emerging use cases, the successful annual consents fulfilled, resulting in data transactions through AA, is expected to reach 1 billion by the year ending 2025 and 5 billion by the year ending 2027.

⁵<https://www.businessworld.in/article/Account-Aggregator-Reduces-Financial-Fraud-By-45-per-cent-Report/04-08-2022-440501/>



F: Forecast

Source: Sahamati Analysis

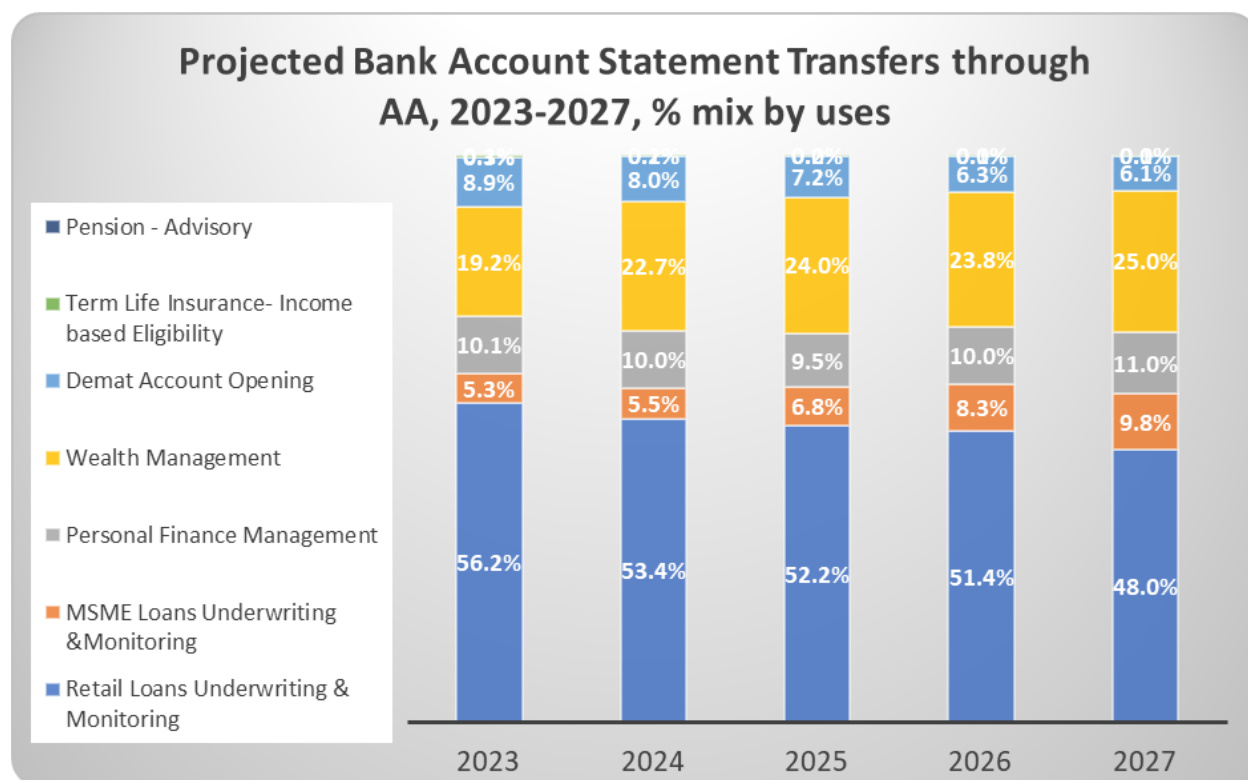
The projections are base estimates built using the early emerging use cases across the four financial sectors. The base estimates include use cases based on transfers of bank account statements for singly held savings accounts and sole proprietorship current accounts currently enabled on the framework and exclude data transfers of joint accounts, non-sole proprietorship current accounts, newer financial information types for securities, insurance, pension, GST data which are expected to get enabled over the next 3 to 6 months.

As the Ecosystem broadens to include additional Financial Information types, several more innovative use cases are expected to emerge, thus resulting in a significant upward revision of the growth projections of 5 billion annual data shares through AA by 2027.

Projected Mix of Use Cases for Bank Account Statements

Banks and NBFCs have taken the lead in adopting the AA Ecosystem, successfully deploying it in their digital lending journeys. The chart below showcases the expected sector-wise mix of consents fulfilled, resulting in successful data transfers of bank account statements over the next five years. As the ecosystem scales, lending is expected to continue to be the prominent use case for bank account statements. However, its share in the overall mix may settle at around 58 percent of the total usage

(down from the current 74 percent), with the rest contributed by the securities market, with primary use cases being personal finance management, wealth management, and demat account opening. MSME lending is expected to benefit from higher lending penetration, with its share in AA usage expected to rise from 5.3 percent in 2023 to 9.8 percent by 2027. Wealth management services may benefit from a similar play, with the rise in penetration of customers accessing advisory, facilitated with easy availability of consolidated financial accounts of customers.



Source: Sahamati Analysis

The above estimates have been built on rudimentary use cases that can be deployed based on bank account statements as available on AA. However, as more FIPs from other financial sectors and government databases go live on AA resulting in more FI types getting activated, newer use cases will emerge. For instance, activating IT returns on AA may boost the usage of AA in the insurance sector as it enables the estimation of income-based eligibility to offer insurance proposals to self-employed citizens who are currently under-penetrated in terms of the insurance reach. As another example, if RBI permits sharing unmasked bank account numbers (currently masked) through AA, it may replace the current bank account verification mechanism done through penny drops or submission of cancelled cheques.

The table below gives the use cases included in the current projections. In the next edition of the report, we will develop revised projections for use cases expected to emerge from additional account types for

the banking sector, data from SEBI, IRDAI, and PFRDA entities, and large government databases getting enabled on AA.

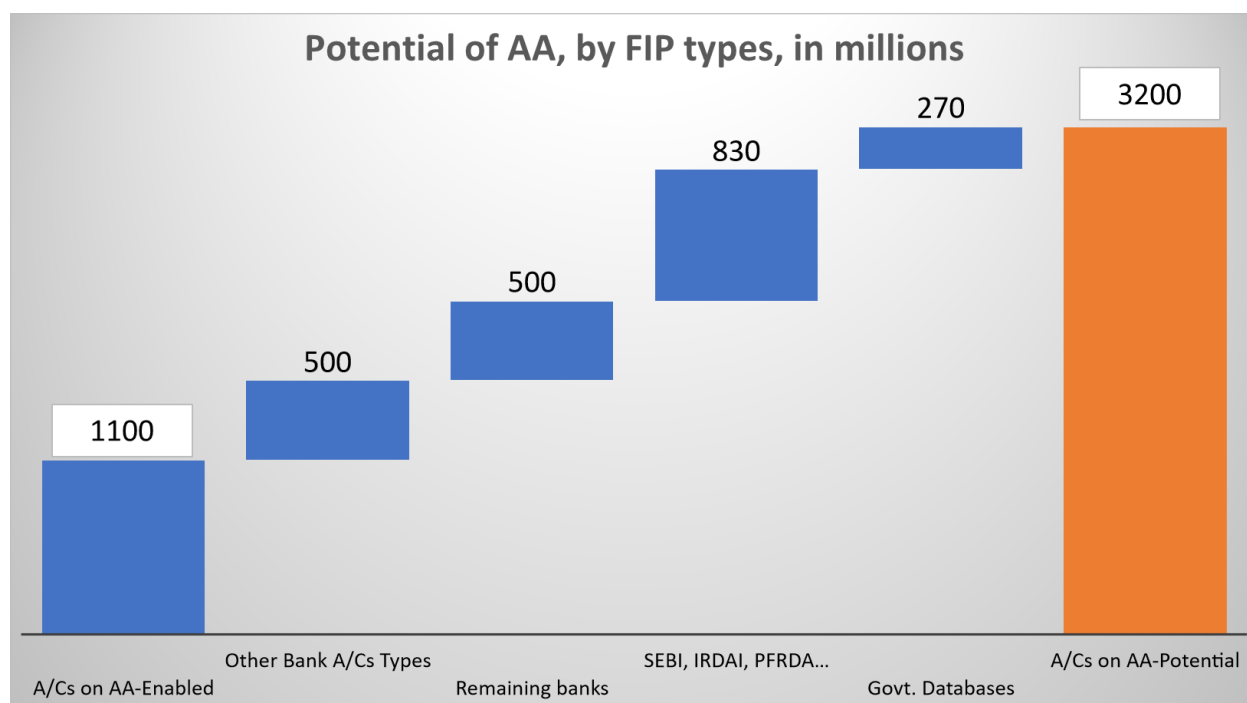
List of Use Cases included in the projections

SNo:	Category	Sub-Category	Use Case
1	Lending	Retail	<ul style="list-style-type: none"> One-time bank statement pulls for underwriting and making a loan offer Recurring bank statement pulls for loan portfolio monitoring and building early warning signals
2	Lending	MSME	<ul style="list-style-type: none"> One-time bank statement pulls for underwriting and making a loan offer Recurring bank statement pulls for loan portfolio monitoring and building early warning signals
3	Securities	Personal Finance Management	<ul style="list-style-type: none"> Recurring bank statement pulls for a consolidated view of a citizen's financial holdings and provide expense management based on an integrated view
4	Securities	Wealth Management	<ul style="list-style-type: none"> Recurring bank statement pulls for a consolidated view of a citizen's financial holdings and provide wealth management services
4	Securities	Income Verification for Demat Accounts	<ul style="list-style-type: none"> One-time bank statement pull at the time of Demat account opening for future and options (FnO) segment to verify the income of the account opener Recurring annual bank statement pull for annual KYC of existing Demat accounts
5	Insurance	Term Life	<ul style="list-style-type: none"> One-time bank statements pull for estimating the income-based eligibility and conducting a risk assessment of the customer to offer a policy with adequate sum assured and premium commensurate with the risk and income profile
6	Pension	National Pension Scheme	<ul style="list-style-type: none"> One-time bank statements pull for advising the customer on the right pension amount required for sufficient retirement planning.

Factors that are expected to drive growth in the Ecosystem

Broadening the base of FIPs

RBI-regulated entities have been at the forefront of the adoption of the AA Ecosystem beginning from large private sector banks going live as FIPs in 2021 to all public sector banks going live as FIPs in August 2022. Entities from SEBI, IRDA, and PFRDA are gearing up to go live with continued encouragement from policymakers and their respective regulators. GSTN has become the first government database to receive a go ahead from the Department of Revenue to go live on AA Framework as a FIP. As the Ecosystem evolves with GSTN completing its technical implementation as FIP on AA, resulting in tangible benefits for the citizens and FIUs, it may be logical for the regulators and policymakers to enable other large government databases such as CBDT, EPFO, and DigiLocker on AA in due course.



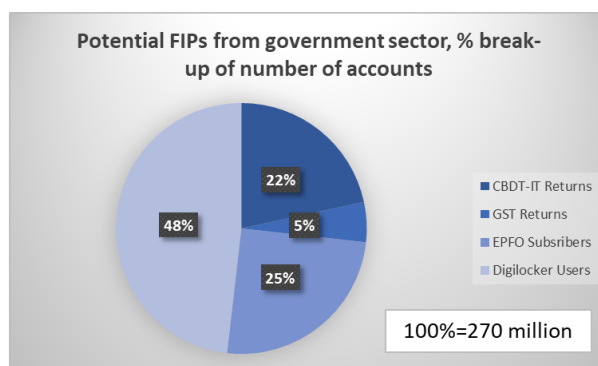
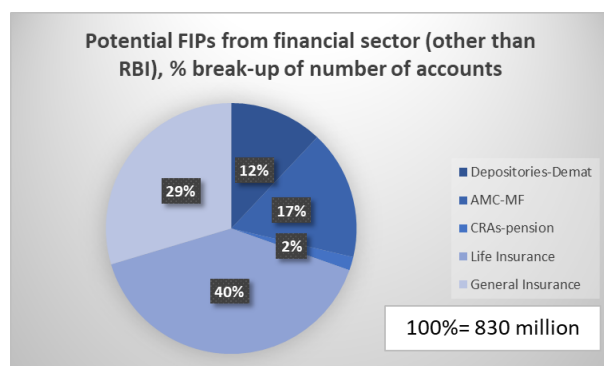
Source: Market Analysis, Sahamati

The chart above shows that the AA Framework coverage can be expected to triple from the currently enabled 1.1 billion accounts (singly held savings accounts and sole proprietorship current accounts) to its full potential of 3.2 billion accounts with the following four data blocks going live on AA Ecosystem in a phased manner.

- ❖ **Data Block 1 (Already Live):** Smaller private sector banks, Foreign Banks, Regional Rural Banks, and Small Finance Banks, which are estimated to account for 500 million accounts

- ❖ **Data Block 2 (Pending technical clarity from ReBIT):** All deposit types, including joint savings accounts, non-individual and non-sole-proprietorship current accounts, and fixed deposit accounts which are estimated to account for another 500 million accounts
- ❖ **Data Block 3 (Process to go live initiated):** Entities regulated and registered with one of the three FSRs (other than RBI), which together are estimated to have a subscriber or account base of 830 million
- ❖ **Data Block 4 (GSTN under process; others yet to get the go-ahead):** Key government databases that capture the taxpayer's data, Digilocker, and subscribers data for provident funds estimated to have a total base of 270 million.

A further breakdown of the estimated number of accounts/subscribers with registered and regulated entities from the three FSRs (other than RBI) and government databases have been provided below.



Source: Market Analysis, Sahamati

As the Ecosystem deepens, incumbents such as public sector banks concerned about being confined to being a net provider on the Ecosystem will see a shift towards a net positive usage equation from the Ecosystem. Further, the deepening of the Ecosystem will also incentivize the FIUs to replace their existing channels for accessing data to AA as a single channel to access data directly from the source FIPs, thus minimizing the cost and risk of collecting data and verifying its authenticity. Improved cost and risk efficiencies will also encourage the FIUs to be more creative in churning out products and services based on accurate profiling of a customer's financial position, built on a vast array of varied authentic digital data points.

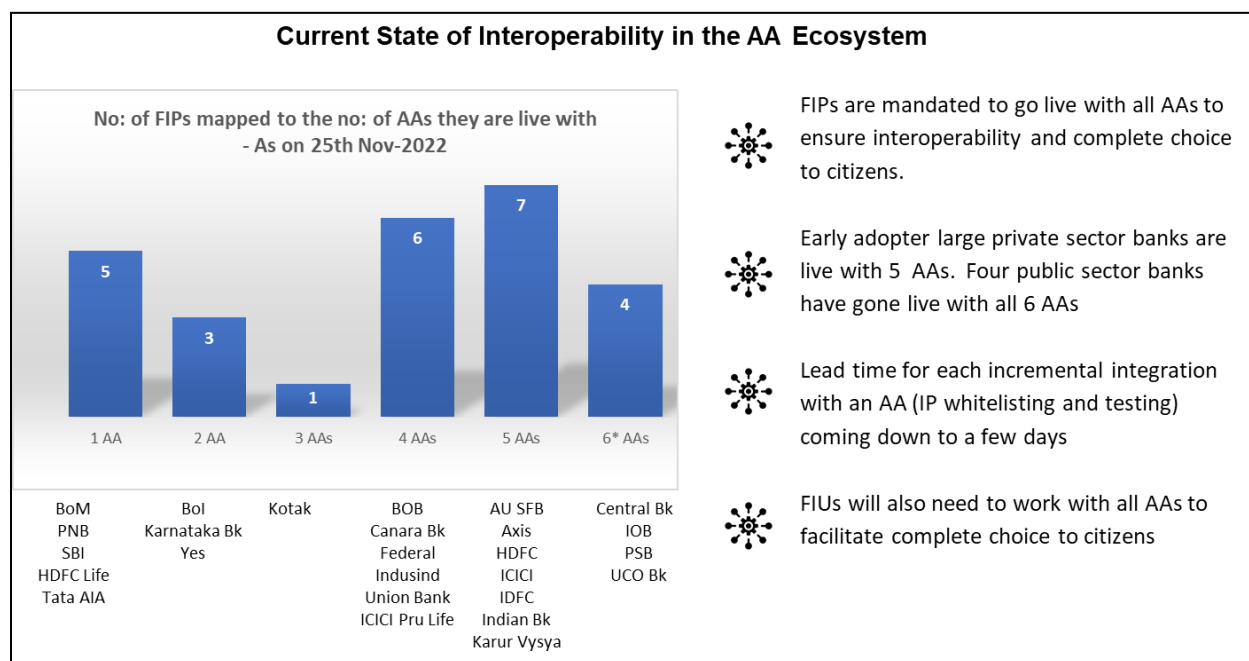
Achieving interoperability

The AA Framework has been designed in a manner that allows complete choice to the citizen to select the consent manager they trust and want to link their accounts with; all FIPs will need to connect with all AAs necessarily. Therefore, ensuring choice to the customer and providing him the ability to link all his

accounts to a single AA handle really dictates the need for the system to operate in a completely interoperable manner.

RBI has notified Account Aggregator data sharing Ecosystem as a federated structure with standard open APIs and protocols that allow a financial institution to make a single implementation to access and share data interoperably via any AA and regulated financial institutions. The reason to opt for a protocol driven approach to interoperability for data in contrast to the platform driven approach for interoperability for payments through a central switch operated by NPCI has been primarily to avoid creating over-dependence of a national level, critical infrastructure on a single entity. In this framework, technical interoperability at the time of implementation has primarily been addressed through standard open protocols published by ReBIT. Standard protocol driven approach implies that a FIP can integrate with all AAs through a single implementation subject to only quick testing and IP whitelisting with every AA.

While standard protocols ensure easy technical interoperability, additional technical & legal shared services are required to enable complete and efficient interoperability to alleviate the need for multiple redundant bilateral arrangements between participants. Account Aggregators have come together with Sahamati to put several of these shared techno-legal services in place. These include a central registry, token service, ecosystem-level participation terms, a common grievance redressal, and an online dispute resolution mechanism.



Source: Industry Feedback

With appropriate policy encouragement, increasing usage of the shared techno-legal services designed to ease off interoperability and a learning curve setting in for FIPs for quicker incremental AA activation, the Ecosystem can be expected to approach full interoperability over the next few months.

Deepening usage and wider innovation

As mentioned above, broadening the FIP base and coverage on AA could result in several cross-sectoral use cases emerging across sectors in due course. The table below captures a few of the potential future use cases that have emerged in our discussion with cross-sectoral participants. While the list is not exhaustive, it highlights AA's immense potential in terms of penetration into newer customer segments and efficiency gains across the financial sectors.

SNo:	Category	Sub-Category	Use Case
1	Lending	Loan to New to Credit, low-income and rural customers with low credit penetration	<ul style="list-style-type: none"> Bank statement pulls for customers who are not digitally savvy in an assisted mode through business correspondents and field agents to share their bank statements and other documents with banks for underwriting.
2	Lending	Loan to New to Credit (NTC) customer	<ul style="list-style-type: none"> Telecom and utility bill statement pulls for underwriting, assessing the repayment history, and offering small ticket pulls to customers who don't have an existing credit history
2	Lending	Loan against FD, Securities, Mutual Funds	<ul style="list-style-type: none"> Statement pull of FDs or Demat accounts or Mutual funds to calculate a prospective borrower's eligibility and sanction a loan while creating a digital-real time lien on the customers holdings
3	Lending	All Lending	<ul style="list-style-type: none"> Bank statement pulls (in place of penny drops or cancelled cheques) for verifying the presence and status of a bank account for making disbursements and setting up e-Nach mandates.
4	Securities	KYC for Demat Account Opening	<ul style="list-style-type: none"> Bank statement pulls for verifying the presence and status of a bank account (in place of penny drops or canceled cheques) to be used for payments and receipts for settlements
4	Insurance	Life and Non-Life	<ul style="list-style-type: none"> Bank account verification of the applicants to release insurance claims into the verified bank accounts.

5	Insurance	Life and Non-Life	<ul style="list-style-type: none"> Pulling existing insurance policies of the applicant of the customer to ensure that the applicant is offered adequate insurance cover, reducing the underwriting risks associated with over-insured customers
6	Insurance	Health	<ul style="list-style-type: none"> Pulling bank statements, and existing insurance policies of the customer to run advanced data analytics and offer profile, need based health insurance options to customers
7	Insurance	Life	<ul style="list-style-type: none"> Pulling Income Tax Returns to offer income eligibility and risk assessment-based offers for self-employed
8	Insurance	Life	<ul style="list-style-type: none"> Bank account verification of the nominees of the applicants to release insurance claims into the verified bank accounts.
9	Securities, Pension	Wealth management, personal finance management	<ul style="list-style-type: none"> Enable financial advisory by pulling information from multiple accounts- deposits, Demat, mutual funds, insurance, credit cards, pension to provide a single view of all assets of a citizen by consolidating balances and transactions held in disparate accounts
10	Citizen	Income Tax Filing	<ul style="list-style-type: none"> Enabling tax computation and return filings for the citizen itself

Increasing customer adoption

Customer adoption of the AA framework is currently in its nascent stage, with less than 0.2% of the total adult population of the country having used it for data transfers. The adoption has been driven by digital financial services providers (FIUs) who have integrated the AA module via an SDK or a web redirection mode in their digital journeys. Integration of AA modules in the FIU application process has enabled the customers to open an AA handle, link their financial accounts to the handle, and provide consent to share data from their existing FIPs to the FIU on a real-time basis.

Apart from this, a few public sector banks are launching pilots at select branches for implementing AA in a phygital process. As part of the pilot, the bank representatives will request the customers to download an AA app using a QR code, open a handle with the AA, link their financial accounts to the handle, and consent to share their data from their existing FIPs to the requesting bank. AA deployed in a phygital mode is expected to expand its reach significantly to the mass consumers, akin to the wide-spread usage of UPI in payments at any merchant establishment.

Beyond the phygital model, there is also a need to extend the reach of AA to the next half billion population, which doesn't have a smartphone or an internet connection, has low financial literacy levels and/or is not digitally savvy. This category of customers needs assistance from business correspondents or agents to apply for and avail financial services. A working group formed by RBIH (Reserve Bank of India Innovation Hub) along with Sahamati has already prepared a draft report with recommendations on Assisted Account Aggregator Framework, to be implemented as a pilot by a group of industry participants. Once successful, a more extensive scale-up will enable a wider reach of AA to the financially excluded customer segments.

As of now, efforts and investments in direct customer campaigns through mass media and digital channels have been limited, thus resulting in low awareness of the AA Framework and its benefits to the end users. National level campaigns sponsored by the regulators, policymakers, and industry participants can be instrumental in building customer awareness and trust in the Ecosystem.

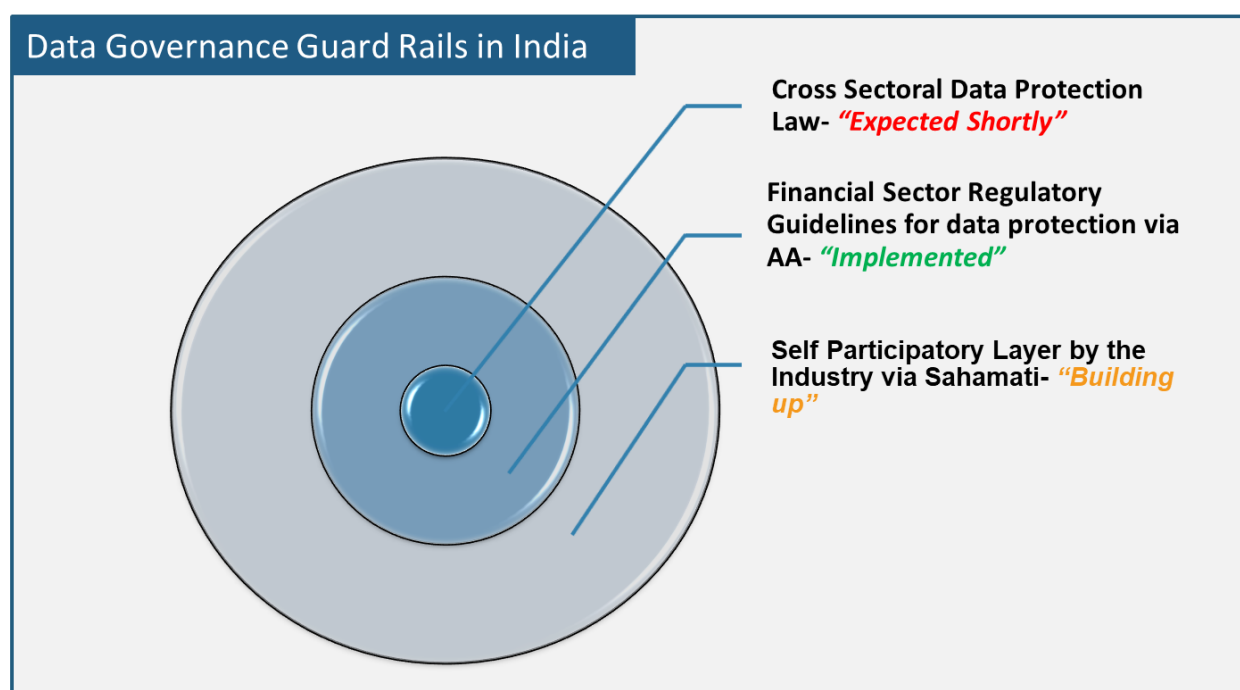
Continued policy and regulatory encouragement

Policymakers recognize the immense potential of AA to transform India's lending landscape and help in achieving financial inclusion objectives. The importance of AA as a digital public good has been reiterated on several occasions by Hon'ble Finance Minister, Ms. Nirmala Sitharaman early in February 2022 and recently, at the Global Fintech Fest 2022 held in September this year. The Department of Financial Services is working closely with the four regulators, entities from the FSRs (SEBI, IRDAI & PFRDA), and various ministries such as the Department of Revenue (DoR) to ensure a broadening of the Ecosystem with time-bound onboarding of various strategic entities to AA, both as FIPs and FIUs. Continued regulatory and policy push is expected to be a key driver for the next phase of the AA Ecosystem growth as it sets on its journey to becoming the "UPI of data" moment for the country.

Evolving Data Governance Framework in India

Indian policymakers, regulators and industry participants have recognized the need to strengthen the data privacy and security framework, especially in an era of digitization where monitoring citizens' data flow and usage is challenging. As a result, efforts to put together data governance guardrails are underway at multiple levels.

Level 1 - Legislative: A data privacy protection bill that will provide the overarching legal framework laying down the rights of the citizens, responsibilities of data fiduciaries, consent management framework, data compliances, data breaches, and penalties is being worked upon. Until then, privacy rules continue to be governed by the Information Technology Act, 2011. The new Data Privacy Bill, coupled with the new Information Technology Act is expected to provide the much required fill-up to the setting up of a robust data governance regime in the country.



Level 2-Regulatory: Taking a cue from the proposed data privacy bill, RBI, in joint consultation with FSDC, has introduced the concept of consent manager for citizens via Account Aggregator, a new class of NBFCs. RBI, in the regulatory framework, has put in various guardrails to ensure trust and security for the citizens. A few highlights of the RBI led Regulatory Framework include:

- ❖ Accessing data via AA has been restricted to FIUs registered with and regulated with one of the four FSRs. Each FIU continues to be governed by the data governance guidelines prescribed by their respective FSR.
- ❖ AAs have been mandated as data-blind entities with the sole business charter of acting as a consent manager for citizens, thus restricting any potential conflicts with their roles.
- ❖ ReBIT, a 100% subsidiary of RBI, has detailed the standard technical specifications for AA which include data schemas, use of electronic consent framework from MeitY, encryption of financial information, and API security standards.
- ❖ RBI Master Guidelines also prescribe that AAs have a proper grievance redressal mechanism that will supplement the existing redressal mechanisms of FIPs/ FIUs as mandated by their respective FSRs as well as the ombudsman/regulatory channels available under FSRs.

Level 3-Industry: While the legislative and regulatory framework forms the core of the data protection framework, the broader financial sector is of the collective opinion that self-participation is the key to strengthening the implementation of the legal and regulatory data protection framework. Sahamati, supported by the larger Ecosystem, has already begun work towards achieving high standards of participatory-regulation, governance and technical efficiency in the Ecosystem. A few of the notable initiatives that have been introduced are as follows:

- ❖ Implementing a Certification Framework to ensure compliance to technical specifications laid down by ReBIT
- ❖ Promoting efficient interoperability to ensure complete choice to citizens to choose their consent manager-AA via shared technical services such as a Central Registry, Token Service
- ❖ Building and rolling out community guidelines (for customer experience, technical and legal aspects) to ensure standard implementation while onboarding AA and designing customer journeys.
- ❖ Shared, central grievance redressal mechanism for the Ecosystem, which is multi-partite and cross-sectoral in nature.
- ❖ Shared ecosystem level participation terms that can be unilaterally accepted and signed by every participant (FIP, AA, FIU, Citizen) thus minimizing redundant bilateral agreements. The participation terms are also expected to reduce the incidence of disputes by ensuring that all participants (across sectors) are bound to uniform terms and conditions while accessing AA

A few initiatives that are planned to be rolled out over the next few months are:

- ❖ Finalising SLAs for FIPs and AAs and ensuring adherence to the same is the key to maintain a sound health of the Ecosystem and deliver good customer experience. Draft SLAs capturing the


uptime of data fetch APIs, latency period for accounts discovery and error rates in data fetch have been prepared and circulated with the FIPs for their acceptance.

- ❖ Designing consent templates by use cases and licence types of FIUs to enforce proper implementation of privacy protection limitations (purpose, collection, and storage) on data accessed by FIUs.

Appendices

List of Abbreviations

Abbreviation	Full Form
AA	Account Aggregator
FIP	Financial Information Provider
FIU	Financial Information User
UPI	Unified Payments Interface
ReBIT	Reserve Bank Information Technology Private Limited
RBI	Reserve Bank of India
SEBI	Securities and Exchange Board of India
IRDAI	Insurance Regulatory and Development Authority of India
PFRDA	Pension Fund Regulatory and Development Authority
RBIH	Reserve Bank of India Innovation Hub
MoF	Ministry of Finance
GSTN	Goods and Service Tax Network
IT	Income Tax
EPFO	Employee Provident Fund Organisation
API	Application Programming Interface
FSDC	Financial Stability and Development Council



TSP	Technology Service Provider
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Useful Resources

- Master Direction- Non-Banking Financial Company - Account Aggregator (Reserve Bank) Directions, 2016 at <https://rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=10598>
- Technical Specifications for Account Aggregator as released by ReBIT at <https://api.rebit.org.in/>
- List of FIPs and FIUs in AA Ecosystem at <https://sahamati.org.in/fip-fiu-in-account-aggregators-ecosystem/>
- AA Ecosystem dashboard at <https://sahamati.org.in/aa-dashboard/>
- Frequently asked questions on AA Ecosystem at <https://sahamati.org.in/faq/>
- FIPs and the AAs on which they have onboarded at <https://sahamati.org.in/fip-aa-mapping/>
- List of TSPs that provide technical support for various aspects of AA at <https://sahamati.org.in/tsp/>
- List of licensed Account Aggregators at <https://sahamati.org.in/aa>
- Download AA apps at <https://sahamati.org.in/aa-apps>
- List of working groups at <https://sahamati.org.in/sahamati-working-groups/>
- Compilation of standard code of conduct as laid down by the community <https://sahamati.org.in/aa-uniform-code-of-conduct/>
- Details of the Ecosystem Participation Terms at <https://sahamati.org.in/participation-terms/>
- A compilation of developers resources at <https://github.com/Sahamati>

About Sahamati

Sahamati is a Section 8, not for profit organisation, working on a mission to build a data empowered society led by Account Aggregator Framework in which citizens are empowered to share their data in a simple, secure and data preserving manner with their explicit consent. We are an industry collective representing the Account Aggregator Ecosystem working closely with policymakers, regulators and industry participants (FIPs, FIUs, AAs, citizens and TSPs) to put in place the building blocks required for promoting adoption, citizen awareness, sound data governance practices, strong performance and efficient interoperability in the Ecosystem.

About the Author

Shalini Gupta is the Head of Strategy at Sahamati with over 22 years of experience in the BFSI domain, having worked with reputed organisations such as ICRA Limited and McKinsey & Co Inc as a BFSI research and consulting expert. Before joining Sahamati, she co-founded a leading digital loans marketplace. She can be contacted at shalini@sahamati.org.in for any queries related to the report or the AA Ecosystem