ACCOUNT AGGREGATORS: A GAME-CHANGER FOR FINANCIAL INCLUSION

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1. Background

In September 2021, India announced the launch of its Account Aggregator (AA) platform. When individuals or small businesses apply for collateral-free loans, the lender requires information from several documents to establish the borrowers' credit worthiness. The borrower has to assemble these documents from different sources (bank statements, insurance policies, mutual fund holdings, etc.) or give the lender access to the same. Now, the Account Aggregator will perform this collation and sharing, with the borrowers' consent.

Account aggregation or financial data aggregation is a technique that involves the collection, assembly and synthesis of information from multiple accounts, such as loan/credit accounts, savings and current accounts, credit cards and investment accounts (including mutual funds, demat accounts, brokerage accounts); government accounts such as public provident fund and income tax return data; and supplementary business or consumer accounts such as those of e-commerce, food or mobility aggregators in a single place. The data collection, collation and sharing are

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enabled through open application programming interface (API) connections."[2]

In simple terms, Account Aggregation is the act of intermediating financial information between financial intermediaries. This may appear a matter of detail, but it is critical as it reduces the informational asymmetries between the creditor and borrower, and consequently reduces the cost of, and improves quality of, credit. As risk-based lending is compromised because the information is either unavailable or not easily retrievable, lenders stick to collateral-based lending. That is one of the reasons behind the surge in mortgage lending globally and not just in India. Real estate loans are easily backed by the collateral of the underlying asset. Hence, business loans that need an assessment on the part of the lender about the riskiness of the cashflows are not favoured.

But, as we try to bring in the financially excluded into the formal financial ecosystem, those with little assets but with a good transaction history, will need to be included. Over time, as all parties get comfortable with it, the AA platform can be the tool to enable this. Risk assessments get better with better information availability as the AA mechanism makes information flow seamlessly and smoothly. Every formal financial transaction that we do online can be useful information in meeting our own future need for funding. Over time, that is how Account Aggregation enables cash-flow based lending.

[2] See 'Account aggregators - putting the customer in charge', *PWC*, (https://www.pwc.in/consulting/financial-services/fintech/fintech-insights/account-aggregators-putting-the-customer-in-charge.html)

In a report published in December 2021, Boston Consulting Group notes, "with the introduction of aggregators, financial data across a range of financial institutions and government agencies can be provided to any lender of customer's choice within minutes based on consent. This will create a step change in speed of access and eligibility for loans for small businesses as the machine-readable data available for credit approval, monitoring and collections per customer grows 100X with twin impact of UPI (Unified Payments Interface) and aggregators."[3]

2. Recent Developments

Account Aggregation has been in vogue in developed countries, particularly in the US and in the UK. It is an initiative or an ecosystem that seeks to bridge the information gap between Financial Information generators or Providers (FIP) and Financial Information Users (FIU).

All of us leave various trails of data when we use smartphones and public Wi-Fi. When we undertake financial transactions, starting from paying for the goods and services with credit cards to making bank deposits, financial market investments or buying insurance products we generate financial data. These data are captured by various financial intermediaries that we use, for savings, for investing, for insurance purposes, etc. These financial institutions can be thought of as Financial Information Providers (FIP). Another set of institutions may make use of the financial information available with other institutions to grant us a mortgage loan or a business loan or

[3] See 'The Poster child: AI, Open Stack & Blockchain will make banking (Banks, Fintech and NBFCs) a poster child of resurgent India', *BCG*, 22nd December 2021 (https://www.bcg.com/en-in/tech-ai-and-open-stack-in-banking)

provide us loan guarantees, etc. These institutions may be considered Financial Information Users (FIU).

Account Aggregators transmit the data gathered from the FIP to the FIU to meet our credit or other financial needs. In India, they do this under the framework of a Data Empowerment and Protection Architecture (DEPA). DEPA offers legal assurance to every Indian – individuals or businesses – that their financial data are secure, will not be misused and will only be shared with and used for the purposes they authorize. AAs are trustees of our data. They do not get to peer into its details. Nor can they use this data. With our consent, however, they can pass on our data from FIP to FIU.[4]

In India, an "Account Aggregator is a consent manager for Financial Data: a new class of Non-Banking Financial Corporations (NBFC) approved by RBI to manage consent for financial data sharing. It was created through an inter-regulatory decision by the Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority (IRDAI), Pension Fund Regulatory and Development Authority (PFRDA) through the Financial Stability and Development Council (FSDC). RBI licenses the AAs."[5]

The AA platform has been in the making in India since 2016 when the Reserve Bank of India issued a 'master direction'.[6] The 'Master Direction' is a set of compliance directives for every non-banking financial

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[4] See V. Anantha Nageswaran, 'India's digital architecture: from infrastructure to superstructure', *Mint*, 7th September 2021 (https://www.livemint.com/opinion/columns/indias-digital-architecture-from-infrastructure-to-superstructure-11630945141571.html)

[5] See https://sahamati.org.in/faq/

[6] See https://www.rbi.org.in/Scripts/BS_ViewMasDirections.aspx?id=10598 (These master directions have been updated as of the 5th October 2021)

company that undertook the business of Account Aggregation.

Since the 'Account Aggregator' is an information intermediary passing on information about a client from FIP to FIU, it needs to operate under a robust privacy and security environment. This in turn requires an explicit delineation of adequate safeguards and monitoring mechanisms. A good beginning has indeed been made in India with the AA framework. Standards have been set even as they continue to evolve to accommodate many different financial intermediaries. Sahamati, a self-organised industry alliance (see Box) has been facilitating the coordination amongst multiple players. As of 7th January 2022, 97 firms were on board, including 32 banks and 10 insurance companies[7]. According to the AA dashboard set up by Sahamati[8], by the third week of January, more than 80,000 accounts have been linked and more than 63,000 consent requests have been fulfilled. However, there is considerable work to be done in bringing more players across sectors covering insurance, capital market and pension.

Onboarding telecom companies as FIP will also be critical. They are the data source for many of the lenders, especially microfinance institutions. If FIPs, for instance, are able to access data from telecom service providers, it would enable them to offer loans of very small sizes. A true volume-based business model in lending to the bottom-of-the-pyramid can happen thanks to the AA platform. A well-functioning low-cost system could enable loan sizes of ₹1000 or even ₹500.

[7] Data from https://sahamati.org.in/participants-in-the-account-aggregator-ecosystem/
[8] See https://sahamati.org.in/aa-dashboard/

The GST network is such a huge repository of information that it being part of any data network will be a big enabler for MSMEs to access finance. The Report of the Expert Committee on Micro, Small and Medium Enterprises published in June 2019 explicitly mentions the need for GSTN to be part of the AA ecosystem and for GST invoices to be available to lenders for cash-flow based lending purposes.

Sahamati

Many voluntary and not-for-profit initiatives have come up to facilitate India's transition to a technology-led provision of public goods including financial intermediation. The DigiSahamati Foundation (Sahamati) is one of them. It is a self-organised Industry Alliance for the Account Aggregator Ecosystem. Among other things, its goal is to convene people and organisations from different backgrounds for the growth of India's Account Aggregator Network.

Sahamati can therefore be seen as a part of, and an extension of, the India Stack which is a collection of technology products and frameworks. Elements in this collection are owned by different agencies. For example, the Account Aggregator Framework is regulated by the Reserve Bank of India and its technology standards are owned by Reserve Bank Information Technology Pvt. Ltd. (ReBIT).

The Account Aggregator platform is at its nascent stage in India, but with the right design it could quickly mature and contribute to an advanced, inclusive and well-functioning financial ecosystem. Towards this objective some questions can help identify the current challenges as well as possible solutions:

a) How would we monitor the performance of the Account Aggregator framework?
b) What are the prerequisites for success? How will the challenge of data privacy be addressed? Do pricing and user experience play in the successful adoption of the framework?
c) What should different players (Government, FIP, FIU, etc.) in the ecosystem do to make it succeed?

The rest of the paper attempts to address each of these issues and summarizes the way forward in the concluding section.

3. Measuring performance

Constant monitoring, analysis and ongoing improvements are a necessary precondition for the AA platform to grow rapidly and also improve its potential to enhance financial inclusion. Currently, Sahamati is tracking the number of accounts linked and consent requests fulfilled. We need to go beyond these.

An intuitive indicator may be one that captures the inclusion of hitherto excluded segments of the population as, after all, the purpose of AAs is to facilitate the flow of information. But that is not likely to happen immediately since large coverage would be required to make such metrics appropriately representative. A better measure in the early stages may be required as well. For example, the number of requests that are made into the GST network could be one, the information that is collected by the FIPs could be another. The number of requests made which culminate in a number of loans actually provided as a result of that information being made available could be yet another such measure that would capture the success of the AA platform in its early stages.

Therefore, there is a need to devise two different sets of metrics, one related to widespread acceptability and adoption indicators, and another about the kind or range of transactions (from low-ticket size to high-ticket size) facilitated and the reach to hitherto untouched segments of the population. While the first set will be more important initially, the importance of the latter would increase over time as the coverage levels increase. Moreover, the metrics of the latter would themselves improve in quality with greater coverage.

4. The pre-requisites of success

a) Data privacy and security

When looking at the pre-requisites for success of the AA platform, the quest takes us unsurprisingly to data privacy, data protection and national data policy. The FIP will be handling considerably sensitive and plenty of data about the clients. Clients must be familiar with and fully aware of the implications of what data they wish to authorise to be shared, where and how far they would be disseminated, etc. In addition to issues of data privacy and confidentiality, non-personal data must be handled sensitively and sensibly too. So, the sooner that India has a framework on data privacy and data protection and the handling of non-personal data, the better are the chances of avoiding much heartburn between FIP, FIU and clients.

In this regard, the Joint Parliamentary Committee that was constituted to study the legislation introduced in 2019 on Personal Data Protection submitted its report to the Parliament in December 2021. The proposed PDP Bill is a much-needed effort at securing privacy and faith in the system and India is among a select few countries to devise an elaborate mechanism to achieve these objectives.

At the same time, the proposed Bill suffers from some gaps. Most important being that a complaint for data breach is allowed to be raised only if there is possibility of harm to the data principal. Further, data fiduciaries (users of personal data such as financial institutions, for example) are required to report breach of personal data where such a breach is likely to cause harm to the data principal. Optional reporting of data breaches makes it difficult to use a financial intermediary or AA (data fiduciary) that handles data with care. The key problem with such conditions is that (a) the onus of providing proof of loss or potential loss shifts to the data principal/complainant and not the data holder, and (b) it effectively reduces the stringency of safeguards on data confidentiality. The JPC has recommended a change in these sections to remove the present ambiguity.

Moreover, the Bill makes a distinction between State and private sector entities providing a similar commercial service in obtaining consent for the use of personal data. State entities are currently exempt from the requirement to obtain consent. The State entities might also be defined too broadly. Insurance and Banking companies created by Acts of Parliament fall under the definition of State as per Article 12 of the Indian Constitution. Since much of Indian banking is dominated by banks with majority government ownership and since these are formed under Acts of Parliament, they would be exempt from obtaining consent. That is a glaring deficiency in ensuring data privacy and security and needs to be corrected.[9]

The exclusion of the public sector from obtaining consent is due to the belief that this would lead to greater data available to kickstart the AA framework. While that may be true, it is also true that credit applications contain a host of clauses that even well-informed borrowers are unable to read. If consent to share data sits on top of such hard-to-read-and-understand clauses, without safeguards against abuse and misuse of financial data, it is a huge risk for users and also a dampener against the widespread acceptance of the AA ecosystem. Further, the fact that such data may have an infinite life means a single mistake or flawed reporting could remain in perpetuity. There are indeed many possible negative implications on compulsory data sharing with the public sector entities and as mentioned, reduces customer control over his own information, works against competitive forces and a level playing field and may encourage customers to game the system in ways that are difficult to predict, etc.[10]

There also exists a vast literature in economics of information on data sharing, opt-in, opt-out, consent and privacy, and there is no clear evidence that compulsory sharing of personal information leads to

[9] See 'Personal Data Protection Bill, 2019', *PRS Legislative Brief*, (https://prsindia.org/billtrack/prs-products/prs-legislative-brief-3399)
[10] Some argue that some women may not want to share personal details including their phone numbers. However, these details are already shared with the financial institutions with which the woman-client interacts, be the Microlenders or banks or insurance companies. The Account Aggregator is one more institution. Therefore, this may not be an insurmountable issue. [See 'JPC approves Personal Data Protection Bill, 2019: Crosses an important landmark', *TOI*, 2nd December 2021 (https://timesofindia.indiatimes.com/blogs/ChanakyaCode/jpc-approves-personal-data-protection-bill-2019-crosses-an-important-landmark/)]

socially beneficial outcomes.[11,12] Given such concerns, we need to put in place (a) robust checks and balances, (b) stringent conditions on how consent is gained in a free, fair and well-informed manner (c) similar treatment for both public and private sector, and (d) expressly built in provisions for 'forgetting' dated information. An in-depth study of the literature on various forms of data sharing in the financial domain and its possible implications may also help.

b) User experience

The other critical requirement for successful adoption is the client's seamless experience. The FIU must integrate the consent and other data handling aspects of the AA framework smoothly into their product or offering such that clients feel that it has been one smooth process from the FIP to the FIU. If she has to deal with different entities, then the aggregation exercise might be a frustrating experience for her, and she would not adopt this platform. Hence, seamless integration of the aggregation process with the FIU is critical for the success of the AA framework.

Further, more FIUs will use the AA framework provided 60% to 70% of their information requirements are met by Account Aggregators. That is, if an FIU downloaded one of the AA apps and placed a request for information, the FIU should be able to get a large share of their information requirement. Of course, that can happen only if a wide variety of institutions join the ecosystem as an FIP.

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[11] See Alessandro Acquisti, 'The Economics of Personal data and the Economics of Privacy', *OECD*, 2010 (https://www.oecd.org/sti/ieconomy/46968784.pdf)

[12] See Alain McQuinn, 'The Economics of "Opt-Out" Versus "Opt-In" Privacy Rules', *Information Technology and Innovation Foundation*, 6th October 2017 (https://itif.org/publications/2017/10/06/economics-opt-out-versus-opt-in-privacy-rules)

Historically both in India and internationally, whether it is with credit/debit cards or, in India, with the National Payments Corporation, the evolution of the ecosystem has been issuer-centric or that the concerns of the issuers have dominated. But, for the system to have wider acceptance and participation, the AA platform has to be more equitable. That is, it must consider the concerns and considerations both of providers and users at all stages of the evolution of the framework.

Moreover, technology by itself may not be the panacea that it is anticipated to be or claimed to be. For instance, without good doctors and good hospitals, a digital health app will not make Indian citizens healthy. And therefore, if the AA platform were to reach the underserved, credit-starved or excluded segments of the population, there has to be an assisted AA framework. Without assistance and that too in multiple languages, only the creamy layer of the population that has access to and is comfortable with the use of smartphones would authorise the FIP to share information to be transmitted to the FIU. It must be noted however that much of what needs to be done with the assisted framework rests on innovation rather than on policy or regulation at this stage. That is, it is up to the participants in the AA framework to enable this rather than look up to policymakers or regulators to initiate it.

c) Pricing

Without an effective pricing model that incentivises the FIPs, this ecosystem may go unutilised. Currently, as of January 2022, State Bank of India is reportedly[13] still to go live, as it is looking into a pricing model where it can share the profit earned by the FIU. The price also needs to be one that customers are comfortable with – this will evolve over time and will impact the eventual adoption on the supply and demand sides of the equation.

As the AA framework matures, pricing will become more and more important, and some regulatory or policy oversight may be required depending upon then prevailing circumstances. While inordinately high prices may work against the rapid spread of AA, prices that are too low may not be able to create strong enough incentives for either entry or innovation.

d) Grievance redressal

A grievance redressal mechanism is another critical component of the AA framework that needs to be incorporated in the early stages. It is also sometimes argued that allowing user nominations to others for providing consent on their behalf should also be built in. Given widespread financial illiteracy, it is not clear how that may play out, however building in such a possibility in the framework would smoothen future changes if required.

e) Participation of small institutions

While we have already reiterated the importance of participation from a wide variety of FIUs and FIPs in the AA system, it bears repetition that many smaller entities such as cooperative banks, regional rural

[13] See 'Account Aggregators link up 80,000 bank accounts, but SBI is yet to go live', *Money Control*, 17th January 2022 (https://www.moneycontrol.com/news/business/account-aggregators-link-up-80000-bank-accounts-but-sbi-is-yet-to-go-live-7944831.html)

banks and technology service providers become part of the platform. Right now, the guidelines are such that any entity that is regulated by any of the four regulators in the country – SEBI, RBI, IRDA and PFRDA – can become part of the AA ecosystem. That number runs into tens of thousands already. So, the lack of a critical mass of institutions is not an immediate problem.

The importance of the participation of small financial institutions cannot be underscored enough, since many start-ups and micro and small businesses, especially from small towns, bank with small finance banks, cooperative banks and regional rural banks. If they have to benefit from the information flow that AA facilitates, then their financial service providers must be part of the AA network. [14] This is especially so since the start-up ecosystem in India, is not confined only to the metros.[15]

f) Support and oversight of regulators/government

Another success ingredient is the endorsement of the framework – not of specific institutions – of account aggregation by the regulator so that the ordinary citizen grows in confidence about the idea and feels comfortable sanctioning the sharing of her data by the FIP with the FIU. This will be especially true for those who are less financially literate, and an endorsement by a trustworthy entity/regulator could help in gaining their acceptance. At the same time issues such as

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[14] See 'The Account Aggregator framework can be SME's UPI. Or is it too early to give credit?', *Economic Times*, 30th November 2021 (https://economictimes.indiatimes.com/small-biz/sme-sector/the-account-aggregator-framework-can-be-smes-upi-or-is-it-too-early-to-give-credit/articleshow/87994782.cms)

[15] See 'The geography of startup incubation in India', *BloombergQuint*, 2nd August 2021 (https://www.bloombergquint.com/opinion/the-geography-of-startup-incubation-in-india)

privacy, pricing, grievance redressal etc. will require a regular monitoring and oversight mechanism. While the framework is currently in its infancy and may not warrant a hard institutional set up for the same, as it gains prominence it will become more important.

To sum, information sharing occurs globally, but for it to be successful and sustainable it has to be done in a proper environment of mutual respect between the data principal, the FIU and the FIP. Financial details are already shared with the financial institutions with whom the clients interact, be they microlenders or banks or insurance companies. The Account Aggregator is one more institution. Therefore, this is not an insurmountable issue. Once that exists, the AA mechanism can be highly successful in leading to superior and socially beneficial outcomes.

5. Concluding remarks

The concept of Account Aggregation has only recently become a reality in India. It is an infant. As a concept, it is about avoiding the drudgery of gathering the data that is increasingly sought by financial sector participants either to extend credit or to sell financial products or manage our assets. Financial due diligence can be done easily with one consent from the client to the AA to gather data from FIPs and share them with FIUs. So, it is clear that the greater the number of financial institutions that come on the platform, the closer it will get to realising its potential.

India's telecom sector has rich data that can provide vital clues about the income and consumption potential and trends of millions of customers. Therefore, RBI and the Telecom Regulatory Authority of India must facilitate the enlisting of telecom companies in the AA platform.

Hence, there is considerable promotional work involved here. Sahamati, as someone that has midwifed the AA ecosystem, is engaged in the promotion of the platform. Yet, it would be useful if the government or the regulators endorse the concept among the public and the industry from time to time, encouraging and reminding them to join the AA platform.

If AA were to plug the information asymmetry or gap that handicaps micro and small businesses from rural and remote parts of India and households with lower incomes, then assistance protocols should be established soon. [16]

In the same vein, as the ecosystem develops, it must be sensitive to the needs of India's women, especially of rural women. Consent protocols and procedures must accommodate their privacy and security considerations and yet, must facilitate their participation in the ecosystem. Only then will AA serve the cause of gender-sensitive financial inclusion.

As important as the above is the issue of data privacy, security and confidentiality. Any frauds or mishandling of data would undermine the attractiveness of the platform for all concerned. The government has to put in place the data protection safeguards soon. India's private data protection legislation should become a reality.

[16] Indian Posts Payment Bank might be able to offer a template in this regard although details are not available publicly.

Within the data protection safeguards some improvement is required that would help in the long-term sustainable growth of the AA platform – this is consent based data sharing, similar treatment of all operators including public and private sector and forgetting dated information.

Establishing protocols for grievance redressal on the part of the end-users and that of the various financial institutions involved is both essential and urgent.

Sahamati, being a self-organised industry alliance, can evolve into a Self-Regulatory Organisation and also assist in creating a well-rounded monitoring device. Further, it can also be resource cum knowledge repository for the participating institutions – not just AAs but also FIPs and FIUs – for constant technological innovation and upgradation.

Lastly, metrics for gauging the acceptability, adoption and hence the success of the platform need to be created and embraced by industry and policy/regulatory institutions. An information dashboard towards this effect in the public domain will be most useful both from monitoring perspectives and in encouraging more participation by industry participants.

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