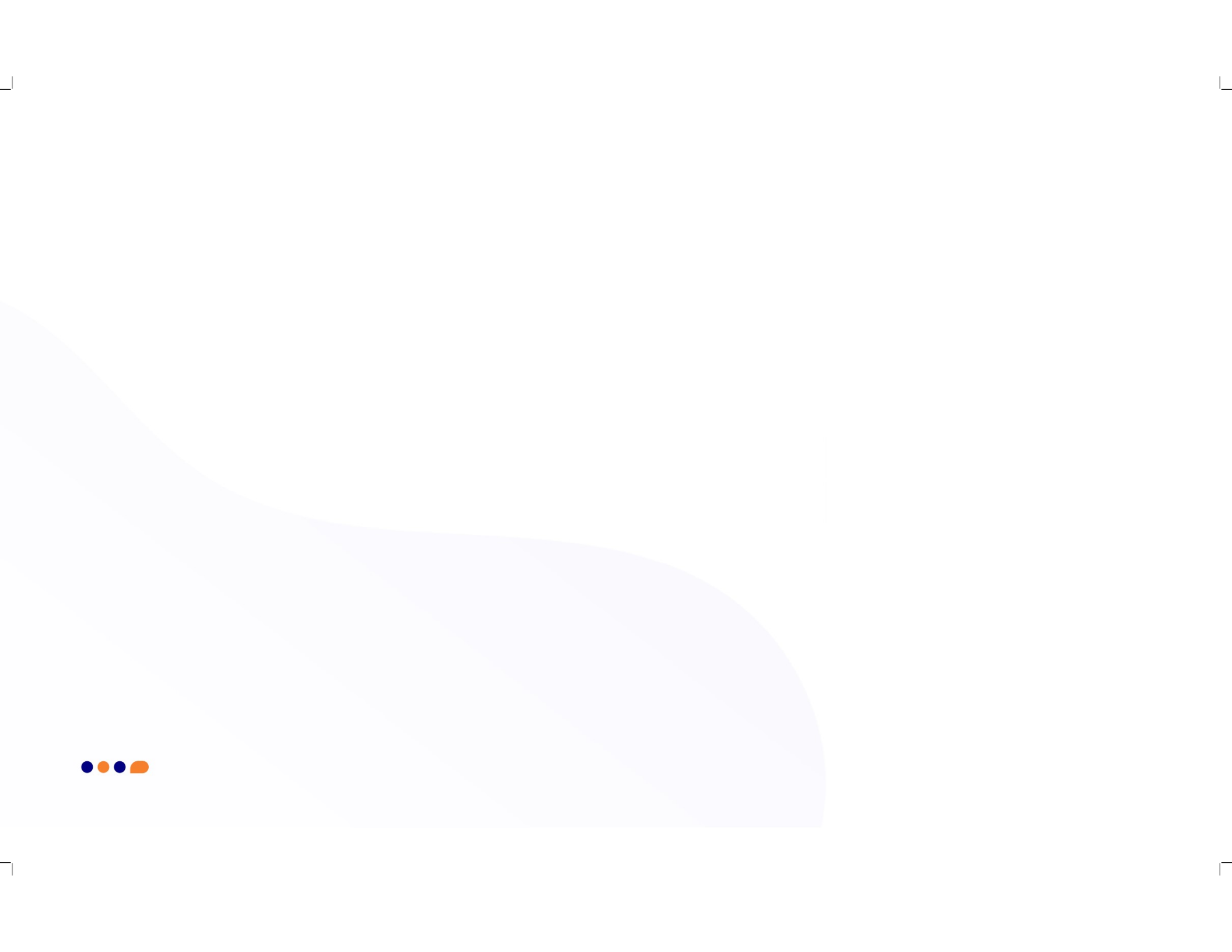


Open Finance

From inclusion to
empowerment of MSMEs

SamvAAd 2024







Open Finance

From inclusion to
empowerment of MSMEs





Foreword

As we embark on the journey of exploring the potential of Micro, Small, and Medium Enterprises (MSMEs) through enhanced financial access, it is imperative to recognise the pivotal role these enterprises play in our economy. MSMEs are not merely contributors to economic growth; they are the backbone of innovation, employment, and resilience in the face of global challenges.

This report, “**Open Finance: From inclusion to empowerment of MSMEs**“, aims to explore the pathways available for empowering these enterprises. With ~6.5 crore MSMEs operating in India, contributing significantly to GDP and exports, it is crucial that we address the barriers they face, particularly in accessing finance.

In this context, we delve into ways in which the Account Aggregator ecosystem can facilitate better access to finance for MSMEs. By leveraging technology and innovative financing solutions, we can create an ecosystem that not only supports these businesses but also fosters their ability to scale and compete on a global stage. This report highlights need for timely financial support to enhance their productivity and market reach.


Furthermore, it emphasises the importance of collaboration among stakeholders – including policymakers, regulators and financial institutions – to create a robust open finance platform enabled by the AA ecosystem to support the scaling-up of MSMEs.

As we present this report, I invite policymakers, regulators, business leaders, and financial institutions to engage with the insights shared herein. Together, one can unlock the immense potential of MSMEs, driving not only individual enterprise success but also broader economic development.



Nandan Nilekani

Co-founder and Chairman, Infosys,
and Founding Chairman UIDAI (Aadhaar)



We express our gratitude to **Mr. R. Gandhi**, Former Deputy Governor, Advisory Council Member, Sahamati. We are grateful for his guidance, encouragement and leadership toward the healthy scale-up of India's Account Aggregator ecosystem in India as it builds the shared techno-legal stack and strong governance.

We thank the following members of the Account Aggregator ecosystem for sharing their valuable thoughts and perspectives:

- **Mr. Anjani Rathor**, Chief Digital Officer, HDFC Bank
- **Mr. Puneet Singh**, Leadership team, ICICI Bank
- **Mr. Rajeev Ranjan Prasad**, Chief General Manager, State Bank of India
- **Mr. Ravi Tyagi**, Chief General Manager, SIDBI
- **Mr. Sameer Shetty**, Head, Digital Business and Transformation, Axis Bank
- **Mr. Vikas B.**, Chief Risk Officer, Moneyboxx Finance Limited

This report would not have been possible without the valuable contributions of our internal team. We acknowledge Shalini Gupta, Head of Strategy and Policy and other members of our advocacy and operations team in bringing this report to fruition.

We also thank McKinsey & Company, our knowledge partner for this report, who provided the analytical fact base.



Acknowledgements





Contents

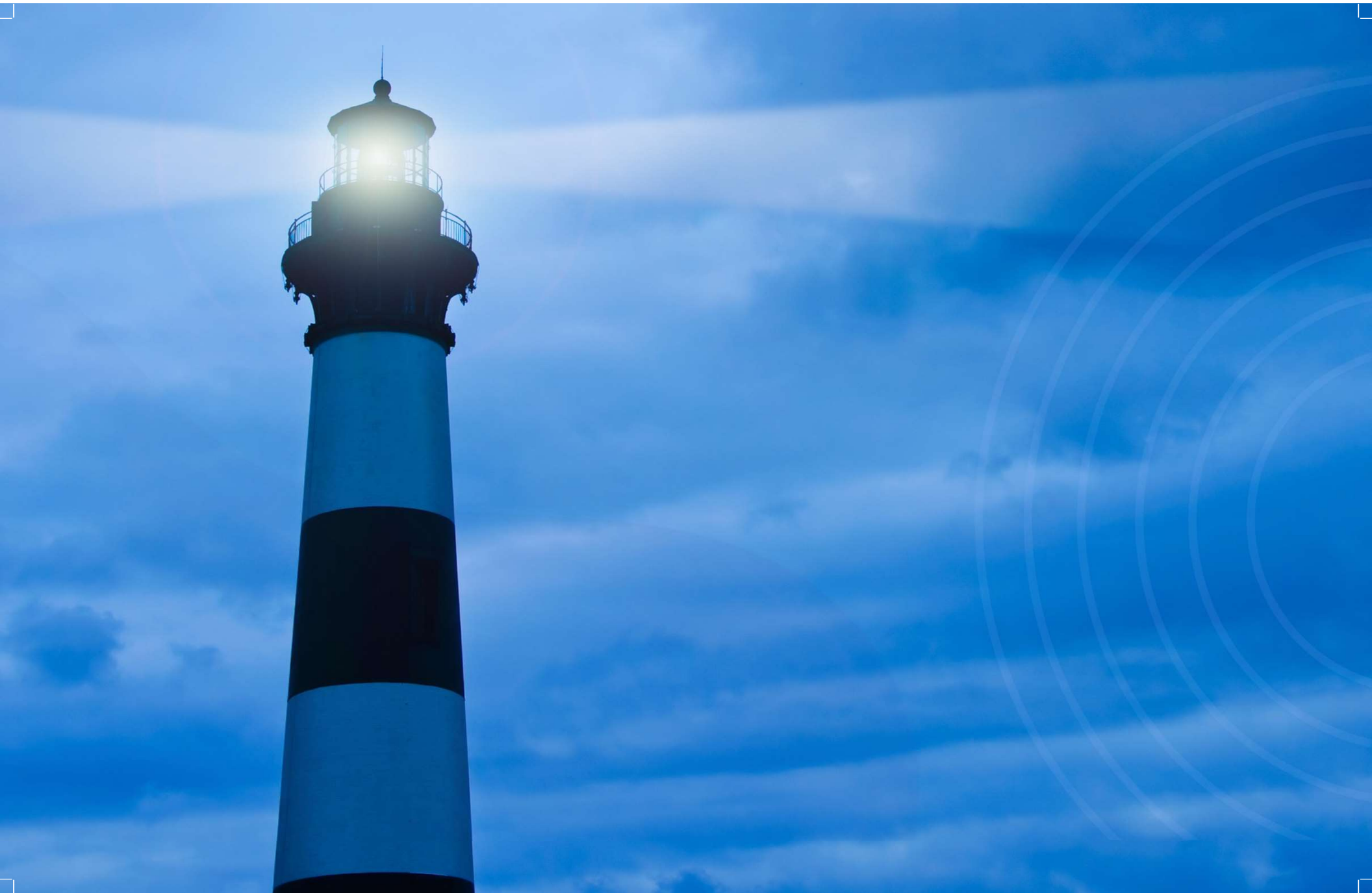
Executive summary

- 1 India's digital public infrastructure:**
The foundation for a developed India

- 2 Untapped potential of India's MSMEs:**
Strengthening the backbone of India's economy

- 3 Open finance:** Enabling financial inclusion and empowerment via the AA ecosystem

- 4 Scaling open finance:** The way forward to realise impact





Executive summary

Executive summary

Open Finance, powered by India's growing Account Aggregator (AA) ecosystem, could transform the pace of MSME inclusion and empowerment. The ecosystem is already enabling use cases that support MSMEs with faster approvals, enhanced credit limits and tailored offerings.

Further strengthening this AA ecosystem with expanded MSME-data sources, guardrails and enablers could boost India's formalised MSME segment (MSMEs that are GST registered) from 35 percent today to around 50 percent in the next 5 to 7 years.¹ This could have a multiplier effect on India's economic growth.

India's digital public infrastructure (DPI): The foundation for a developed economy

The DPI can be an accelerant to financial services, innovation and inclusion. With its three layers: digital identification that **enables**, digital payments that **engage**, and finally, data sharing and access that **empowers**, India's DPI offers a level playing field for a vast population to fully participate in and contribute to a growing economy.

This constantly evolving infrastructure can create large ecosystems that spark immense combinatorial possibilities via maturing networks (e.g., Account Aggregators, the Goods and Services Tax network) and mature utilities (e.g., DigiLocker, Unified Payments Interface). These could fuel at-scale innovations across India, from the furthest rural reaches to the bustling commercial centres of the country.

Untapped potential of India's MSMEs: Strengthening the backbone of India's economy

India's MSMEs employ over 200 million people, contribute nearly 30 percent of GDP and around 50 percent of exports.² Bridging the persistent credit gap of around INR 45 lakh crore could potentially uplift India's GDP by 11 percent.³ Today, 65 percent of MSME credit demand is unmet by formal credit sources.⁴ Pain points include slow bank processing times, the lack of ready collateral, documentation, and credit history to meet eligibility requirements, as well as high interest rates.

1. See projections page in Section 4 for the methodology underlying this analysis
2. Democratising digital commerce in India, ONDC, May 2023; Udyam Registration Portal
3. A microscope on small businesses', McKinsey Global Institute, May 2024
4. MSME Pulse report February 2024

~6.5 crore (65 mn)
MSMEs in India

INR
~45 lakh crore
(~USD 540 bn)
MSME credit gap

~11%
Potential lift in India's
GDP from closing the
productivity gap in
MSMEs



Executive summary

And not credit alone, MSMEs desire help with other areas that could be important enablers for business scale-up: Beyond financing (e.g., forex, factoring and cross-border payments), smarter customer acquisition and management (e.g., digital marketing, website and platform development) and seamless business operations (e.g., accounting and order management).⁵

Open Finance: Enabling financial inclusion and empowerment via the AA ecosystem

The AA ecosystem has facilitated over INR 88,000 crore in loan disbursements across more than 9.5 million loans, of which around 20 percent are unsecured business loans.⁶ Using technology to share data in real-time, AAs allow faster processing, reduce processing costs, and enable efficient risk management.

This could be an unlock for financial institutions that struggle with high risk and processing costs for MSME loans. Multiple AA-driven innovations and use cases exist, where MSMEs benefit from faster approvals, enhanced credit limits and tailored offerings. Further aggregating various data sources in the AA ecosystem could enable over 15 innovative use cases for greater MSME inclusion and empowerment.

5. McKinsey 2022 APAC SME Diagnostics survey, India

6. Sahamati analysis

Scaling Open Finance: The way forward to realise impact

To enhance impact for MSMEs, the AA ecosystem could require strengthening through appropriate guardrails and enablers:

- **At the engagement layer:** Ensuring the fair, appropriate use of MSMEs' personal data
- **At the delivery layer:** Unlocking greater capabilities by expanding the data set and enabling interoperability
- **At the enablement layer:** Maintaining a robust governance mechanism

These unlocks could accelerate the formalisation of MSMEs, which in turn could fuel greater growth for financial institutions, generating more than INR 6 lakh crore in revenues with around 15 to 20 percent lower risk costs.

Strengthening the AA-enabled ecosystem could grow India's formalised MSME segment from

~35% today

to

~50% in the next 5-7 years

and reduce GNPA's by

~15-20%

in the Indian banking sector through more effective credit and fraud risk management

1

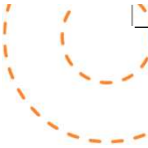
India's digital public infrastructure: The foundation for a developed India

The digital public infrastructure (DPI) of India can be an accelerant for financial services, innovation and inclusion. With its three layers: digital identification that **enables**, digital payments that **engage**, and finally, data sharing and access that **empower**, India's DPI has contributed to transforming the financial services landscape of the country.

It offers a level playing field and unlocks digital access for a vast population of varying means and abilities, inviting and empowering them to fully participate in and contribute to a growing economy.

This constantly evolving DPI can create large ecosystems that accelerate the journey toward broad-based, inclusive growth in the country. The combinatorial possibilities of maturing networks (such as account aggregators, the Goods and Services Tax network) and mature utilities (such as DigiLocker and Unified Payments Interface) could fuel at-scale innovations across India, from the furthest rural reaches to the bustling commercial centres of the country.

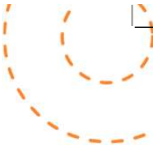




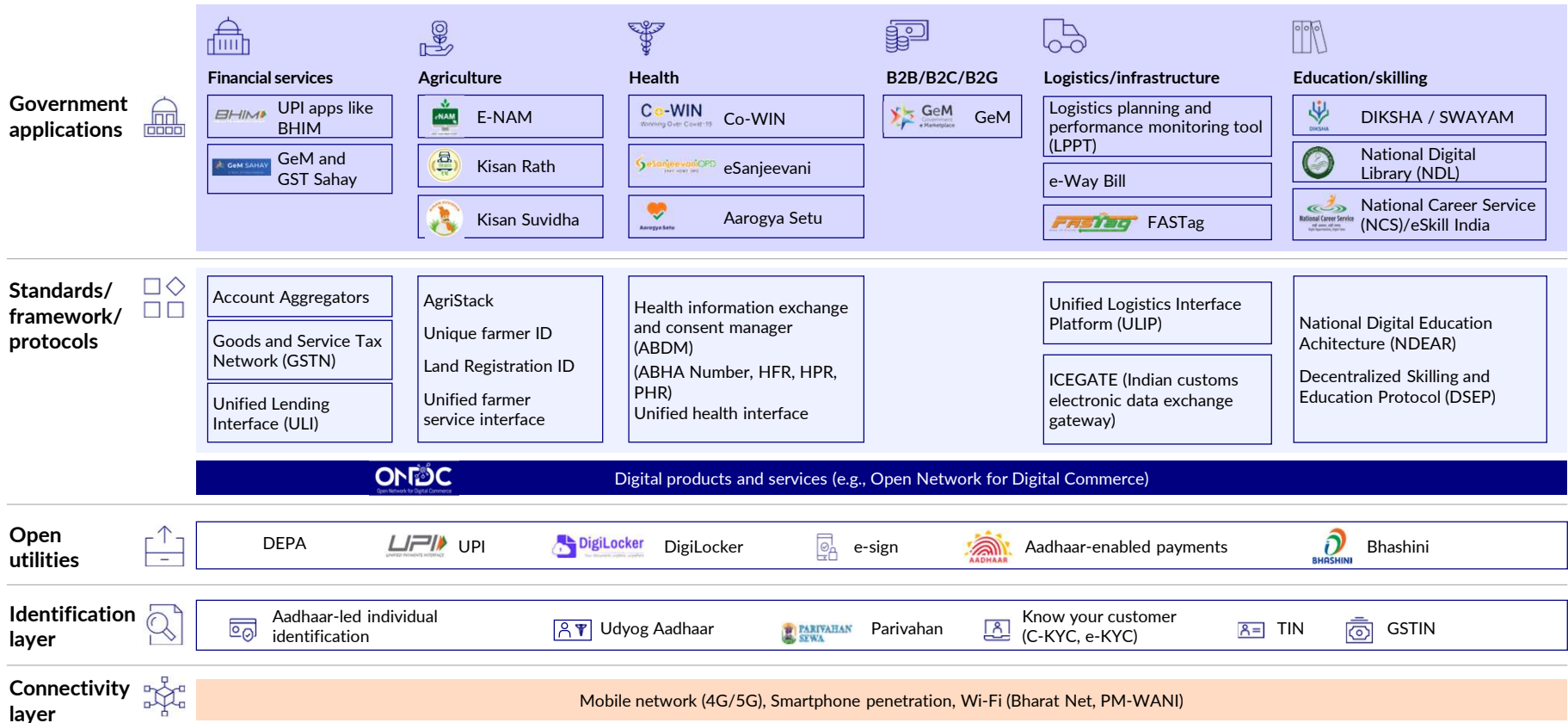
●●● India's digital public infrastructure (DPI) can be an accelerant for financial services

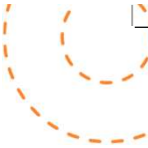


Source: Sahamati analysis, UIDAI, NPCI, Bharat Bill Pay











Continuously evolving and scaling, the digital public infrastructure can enable large ecosystems to emerge (1/2)





Continuously evolving and scaling, the digital public infrastructure can enable large ecosystems to emerge (2/2)

Maturing networks 	 Account Aggregator ecosystem <ul style="list-style-type: none"> Bank statements (current / savings accounts - sole) Income Tax, pension data Securities and Insurance data AAs to be registered with RBI as NBFC-AAs	>8 crore users	 Unified Logistics Interface Platform network Access to 1600+ data fields from 7 ministries that includes: <ul style="list-style-type: none"> FASTag, Vahan, Sarathi – Transaction, registration data, driving license Gatishakti – Highway, state road data Companies to register with ULIP to access data via APIs	>1,000 corporates
	 Goods and Services Tax Network <ul style="list-style-type: none"> GST taxes already paid and payable Input tax credits availed Any penalties or late fees incurred Businesses need to register above turnover threshold	>1.3 crore businesses	 Open Network for Digital Commerce <ul style="list-style-type: none"> Seamless integration among different e-commerce platforms Access to data about customer behavior and market trends Buyers and sellers can transact irrespective of the platforms / applications they use	>5.3 lakh merchants
Mature utilities 	 DigiLocker 630+ demographic documents currently: <ul style="list-style-type: none"> Identifiers (e.g., Aadhaar, PAN) Certificates (e.g., Academic, Residence, Income, Birth) Financials (e.g., Insurance, UAN) Property (e.g., property certificates) Companies to register as requestor to access data via APIs	>34.5 crore users	 UPI Instant real-time payment system to facilitate inter-bank transactions through mobile phones: <ul style="list-style-type: none"> Transactions made using the recipient's UPI ID, be it a mobile number, QR code, or Virtual Payment Address, eliminating account numbers Merchants pay interchange fee for transactions above INR 2,000 (it is free for individuals) Service providers need to acquire license from NPCI	>35 crore active users

Source: Sahamati analysis, UIDAI, NPCI, Bharat Bill Pay

2

Untapped potential of India's MSMEs: Strengthening the backbone of India's economy

India's approximately 6.5 crore MSMEs employ over 200 million people, contribute nearly 30 percent of GDP and around 50 percent of exports.¹ Bridging the persistent credit gap of around INR 45 lakh crore could unlock greater value, potentially uplifting India's GDP by 11 percent.²

Approximately 65 percent of MSME credit demand is unmet by formal credit sources. India's MSMEs vary widely in size and degree of formalisation. These enterprises, especially the smaller ones, struggle with slow bank processing time, the lack of ready collateral, documentation, and credit history to meet eligibility requirements, as well as high interest rates.³

And not credit alone, a survey of MSME respondents found that they desire help with other areas as they aspire to scale up: Beyond financing (e.g., forex, factoring and cross-border payments), smarter customer acquisition and management (e.g., digital marketing, website and platform development) and seamless business operations (e.g., accounting and order management).³

Addressing these needs for MSMEs could empower them and foster development to create a multiplier for economic growth in India.

1. Democratising digital commerce in India, ONDC, May 2023; Udyam Registration Portal

2. 'A microscope on small businesses', McKinsey Global Institute, May 2024

3. McKinsey 2022 APAC SME Diagnostics survey, India

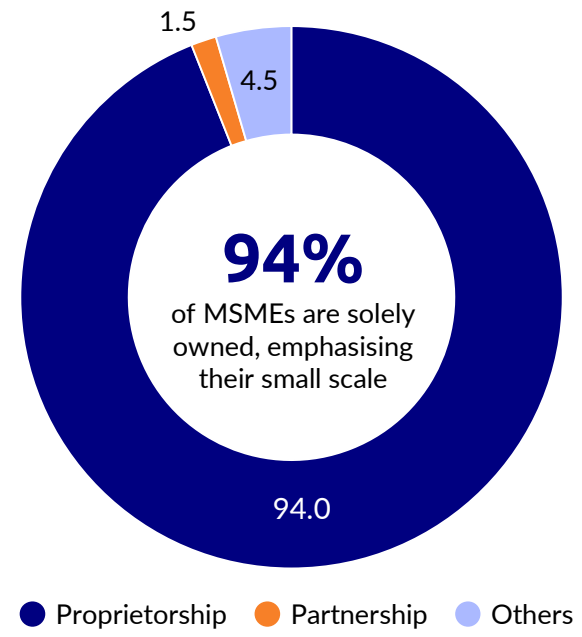


India's MSME landscape

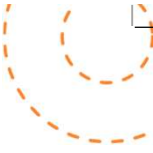
97% of India's
~6.5 crore MSMEs
 are micro enterprises;
 half of these are in
 rural areas

MSME segments by turnover, INR	Concentration in urban areas, %	Total number, crore
Medium (50-250 crore)	80	~0.01
Small (5-50 crore)	75	~0.2
Micro (<5 crore)	50	~1.2
Formal		~5.0
Informal ²		
Total	~50	~6.5

% split of MSMEs by ownership structure¹



1. Others includes private company, public company & cooperative
 2. Without GST identification number
 Source: Total number of MSMEs from MSME Annual Report 2022-23; split between Micro, Small, Medium using proportions of MSME Udyam Registration



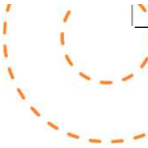
India's MSME segments vary in size, degree of formalisation and credit requirements

Illustrative

xx Number of enterprises

	<ul style="list-style-type: none"> ● Informal micro enterprises ● Turnover <40 lakh 	<ul style="list-style-type: none"> ● Micro enterprises ● Turnover <INR 5 crore 	<ul style="list-style-type: none"> ● Small enterprises ● Turnover ~INR 5-50 crore 	<ul style="list-style-type: none"> ● Medium enterprises ● Turnover ~INR 50-250 crore
Credit needs	<ul style="list-style-type: none"> • Small ticket, unsecured loans for running businesses to get inducted into the formal credit market 	<ul style="list-style-type: none"> • Invoice based financing OD/CC limits, small ticket unsecured loans for business 	<ul style="list-style-type: none"> • Raw material purchase, working capital, machinery/equipment/asset purchase 	<ul style="list-style-type: none"> • Business expansion (new stores/branches), machinery/equipment purchase, working capital
Product needs	<ul style="list-style-type: none"> • Unsecured lending products, various subvention schemes like PM SVANidhi PM Vishwakarma, schemes for artisan etc. 	<ul style="list-style-type: none"> • Unsecured lending products, Credit Guarantee Schemes 	<ul style="list-style-type: none"> • Secured- WC/TC/LAP, Supply Chain Finance, Credit Guarantee Schemes 	<ul style="list-style-type: none"> • Equity financing, Supply Chain Finance, secured - WC/TC/LAP, trade and Forex
Loan ticket size (INR)	<ul style="list-style-type: none"> • <5 lakh 	<ul style="list-style-type: none"> • <50 lakh 	<ul style="list-style-type: none"> • 1- 2 crore 	<ul style="list-style-type: none"> • >5 crore
Customer needs	<ul style="list-style-type: none"> • Assisted and digital access to credit • Minimal paperwork • Faster credit availability 	<ul style="list-style-type: none"> • Easy access to credit • Limited to no documents • Limited collateral requirements • Faster credit availability 	<ul style="list-style-type: none"> • Full credit requirement need is met to avoid leveraging informal sources of credit • Competitive pricing • Faster credit availability 	<ul style="list-style-type: none"> • Full credit requirement need is met • Competitive pricing • Digital access to services like Business Financial Management (BFM)
Documents available (financials + GST)	<ul style="list-style-type: none"> • Little to no reliable financial statements • Signals of financial strength captured mostly in UPI/wallet transactions and alternate sources such mobile and utility bills, Fastag data, GeM Sahay data 	<ul style="list-style-type: none"> • Reliable financial statements with limited reported incomes • Financial strength reflected in cash flows captured in bank statements, GST returns 	<ul style="list-style-type: none"> • Sketchy financial reporting with limited collateral • GST details are typically available 	<ul style="list-style-type: none"> • Established companies with full financials and GST reports • Stock statements
	~5 crore	~1.2 crore	~0.2 crore	~0.01 crore

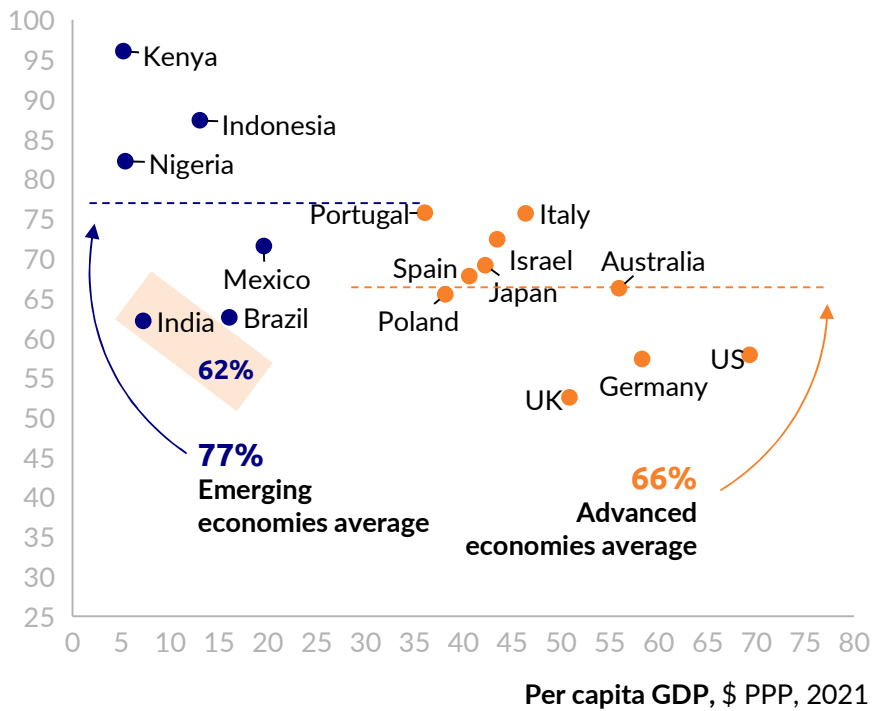
Source: Total number of MSMEs from MSME Annual Report 2022-23; split between Micro, Small, Medium using proportions of MSME Udyam Registration



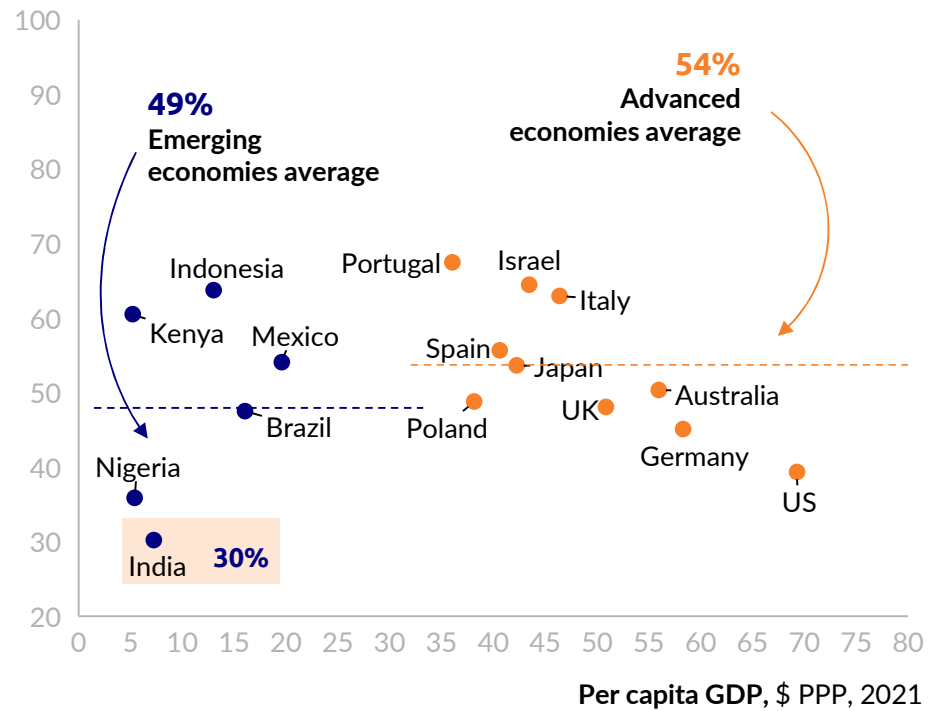
●●●● Among emerging and advanced economies, India lags global averages in MSME share of employment and total value added

● Advanced economies ● Emerging economies

MSME share of employment in business sector¹, %



MSME share of value added in business sector¹, %

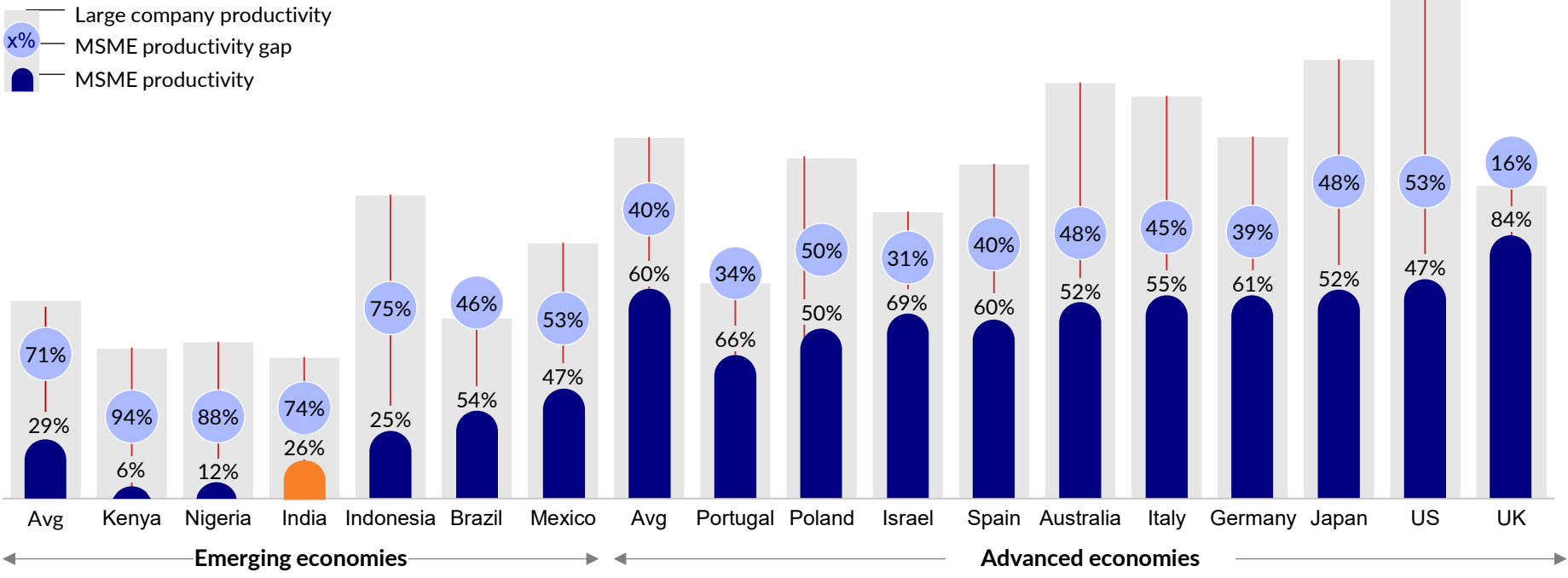


1. Year for which data are available / represented varies by country from 2016 to 2019; MSME and large size category definitions match each country's national definition
 Source: 'A microscope on small businesses', McKinsey Global Institute, May 2024

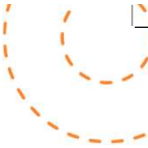
As a result, Indian MSMEs are less productive and have significant headroom for growth

Narrowing the productivity gap of Indian MSMEs between current and top-quartile across subsectors has the potential to uplift GDP by 11%

Productivity, Value added per worker, \$ thousand (PPP), countries ordered by overall MSME productivity



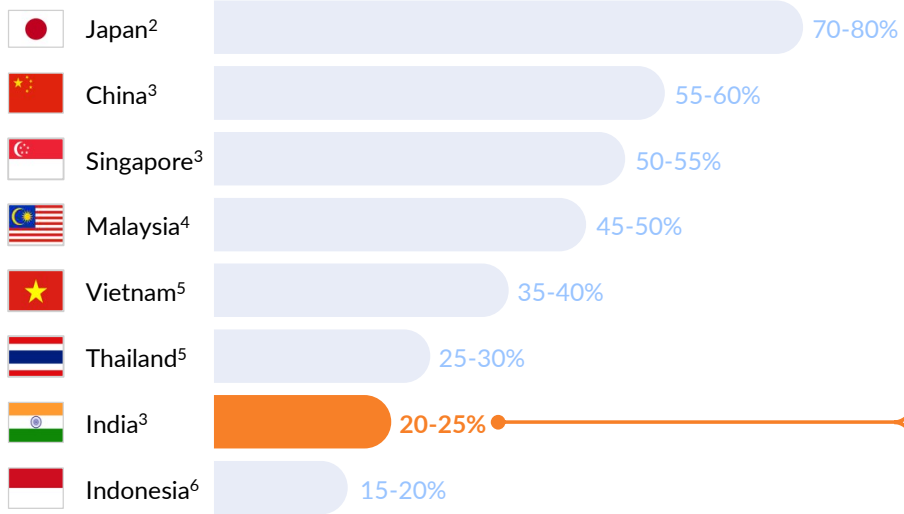
Source: 'A microscope on small businesses', McKinsey Global Institute, May 2024



●●●● Among Asian countries, India's share of formal financing access shows substantial potential for growth

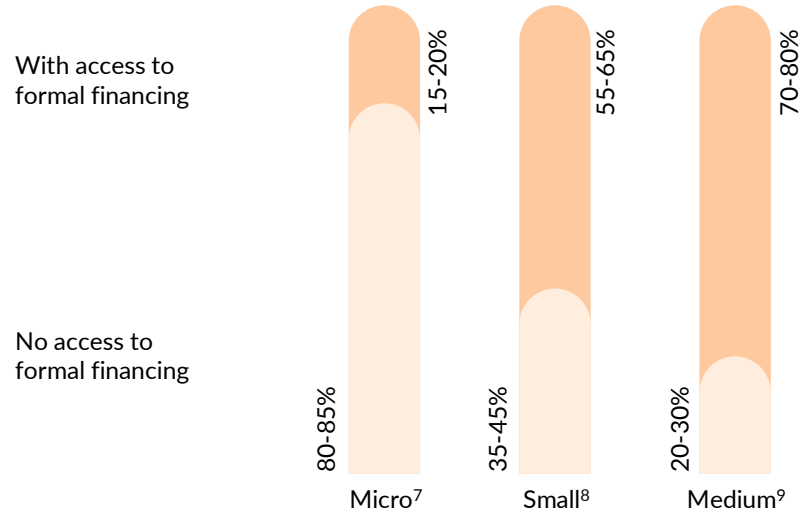
Only 20-25% of MSMEs have access to formal finance in India, compared to 70-80% in Japan

Share of SMEs with access to formal source financing¹, %



>80% of micro enterprises and over a third of small & medium-sized businesses struggle to get access to formal financing

Penetration of formal source financing by segments, % of SMEs



1. Formal sources include commercial banks and other non-bank financial institutions
 2. As of 2021
 3. As of 2020
 4. Estimate based on 2018 report published by BNM
 5. As of 2022
 Source: World Bank, JFC, OECD, ADB, BNM, ACCA, Bangkok Post, Jakarta Post, Vietnam News

6. Estimate based on 2019 report published by Asian Development Bank
 7. Businesses with annual turnover less than INR 5 crore
 8. Businesses with annual turnover between INR 5 crore and INR 50 crore
 9. Businesses with annual turnover between INR 50 crore and INR 250 crore

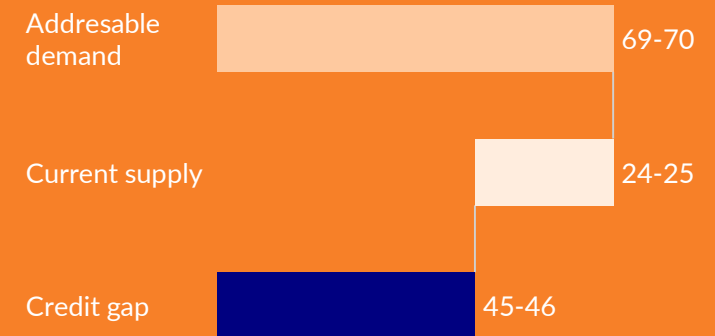
●●● The formal credit market for MSMEs in India is INR 24-25 lakh crore...

MSME segments by turnover, INR		Market lending size ¹
		Total (INR lakh crore)
Medium (50-250 Cr.)		7-9
Small (5-50 Cr.)		9-11
Micro (<5 Cr.)	Formal	4-6
	Informal ¹	0-1
Total		24-25

1. Without GST identification number
 Source: MSME Pulse report February 2024, Micro is split into formal and informal (characterised by lower ticket size and penetration)

...and there exists a credit gap of INR ~45 lakh+ crore

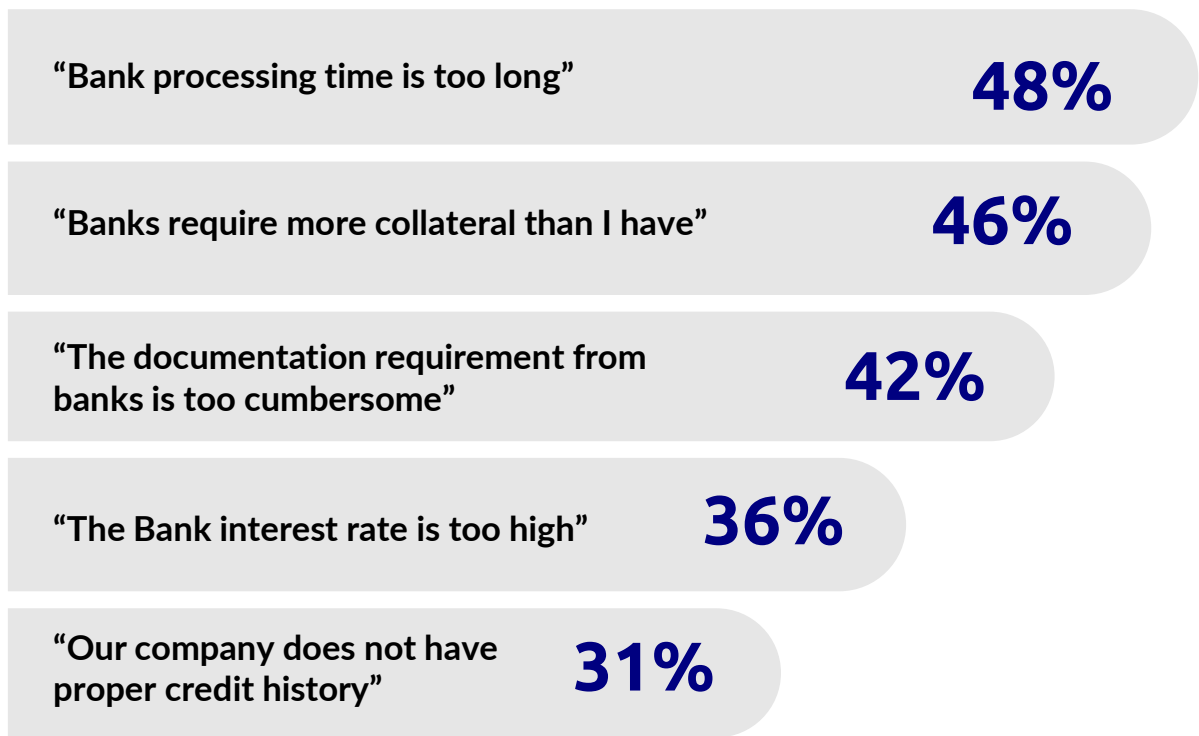
MSME lending market (in INR lakh crore)




~65% of the credit demand is unmet by formal sources of credit

●●● The 5 leading factors hampering MSMEs that seek financing from banks

% of total respondents¹



1. Sum of responses will not add to 100% as multiple choices per respondent are possible
Source: McKinsey 2022 APAC SME Diagnostics survey, India

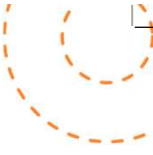


PAIN POINTS IN CREDIT ACCESS

MSMEs are more sensitive to non-pricing related factors, as they struggle to obtain credit from financial institutions

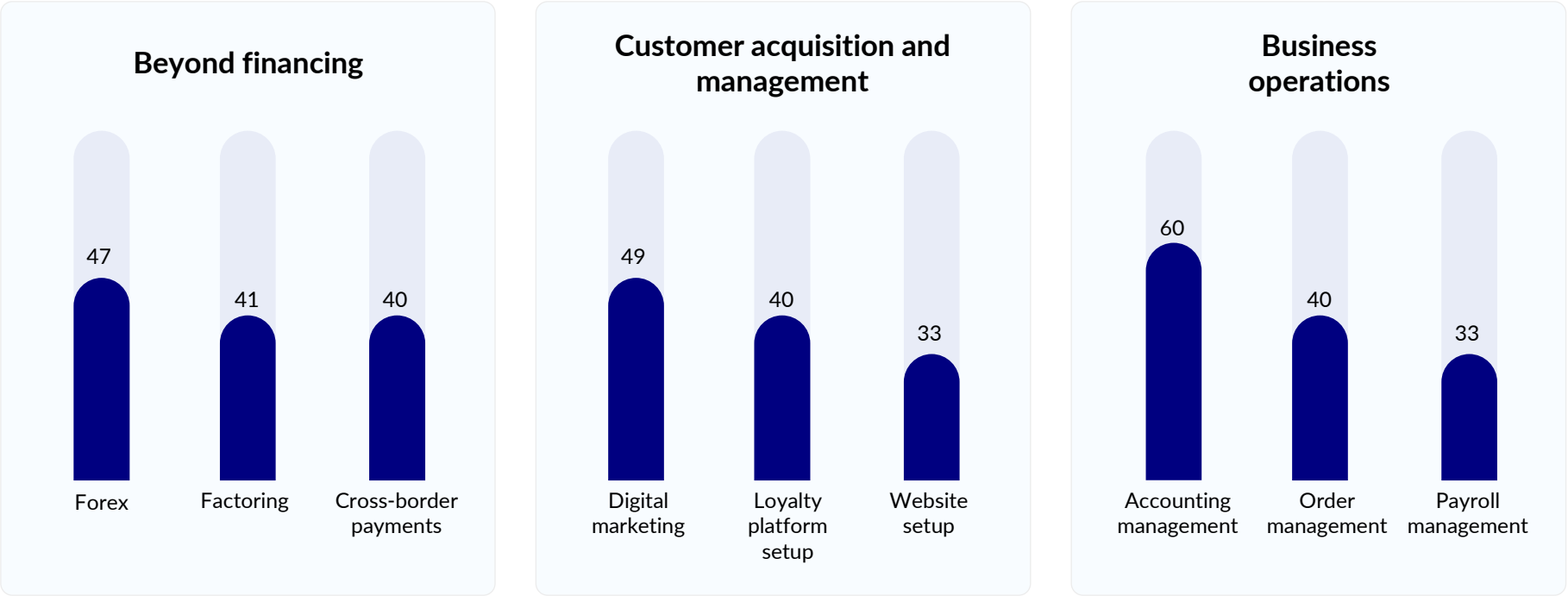
Major challenges include:

- Length of time for processing applications
- Limited appetite of financial institutions to extend unsecured credit
- Elaborate documentation requirements



●●● In addition to credit, MSMEs also desire services that can help them to successfully scale up their businesses

Key areas MSMEs need support
% of respondents



Source: McKinsey 2022 APAC SME Diagnostics survey, India





3

Open Finance: Enabling financial inclusion and empowerment via the AA ecosystem

Open Finance, through the Account Aggregator (AA) ecosystem, could empower MSMEs to access credit and financial services. Since launch, the AA ecosystem has facilitated over INR 88,000 crore in loan disbursements across more than 9.5 million loans, of which around 20 percent are unsecured business loans.¹

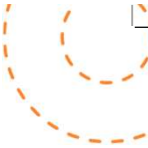
An AA delivers customers' financial data (securely, with consent), from entities that hold the data to those that provide financial services. Using technology to share data in real-time, the AA ecosystem allows faster processing, reduces processing costs, and enables efficient risk management.

This could be an unlock for financial institutions that struggle with high risk and processing costs for MSME loans. Further leveraging the AA ecosystem could ease the credit and financial services landscape for these institutions and for MSMEs.

The AA ecosystem has already led to multiple innovation and use cases, with MSMEs benefiting from faster approvals, enhanced credit limits and tailored offerings, all through user-friendly, digital customer journeys. Further aggregating various data sources in the AA ecosystem could unlock over 15 innovative use cases for greater MSME inclusion and empowerment.

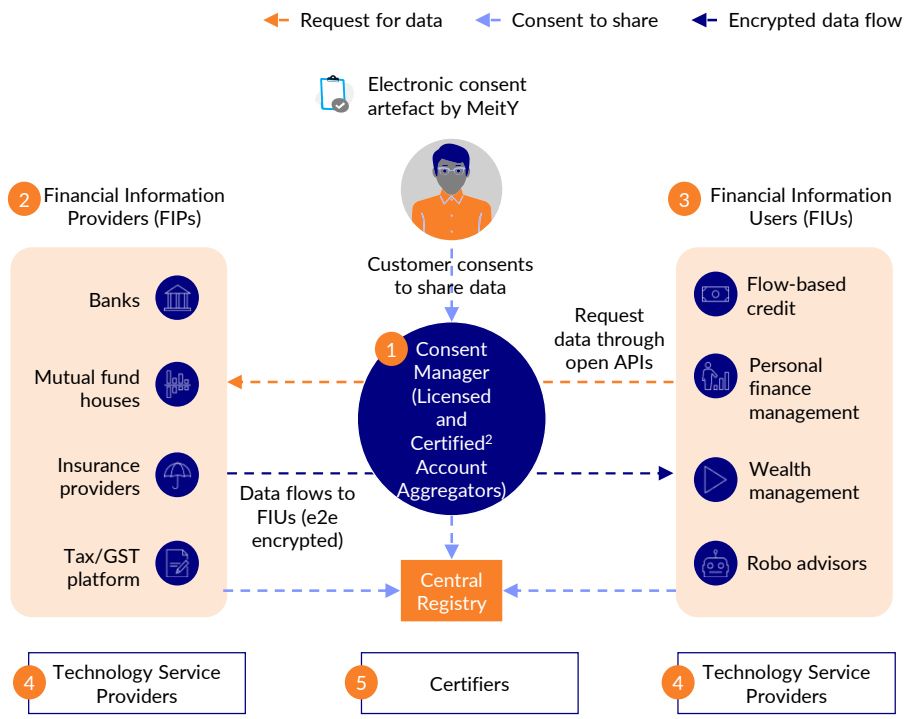
1. Sahamati analysis





Snapshot of the Account Aggregator (AA) ecosystem and its participants

An Account Aggregator enables digital data sharing (with customer consent) among financial services participants



Participants	Number (#) ¹
1 Account Aggregators (AAs): Non-banking financial companies licensed by RBI. These act as a consent manager, delivering data from Financial Information Providers (FIP) that hold customers' personal or corporate financial data to Financial Information Users (FIU) that provide financial services.	15
2 Financial Information Providers (FIPs): Institutions that hold user data. These hold the customer's financial information, sharing it with the relevant Financial Information User when requested through an AA.	164
3 Financial Information Users (FIUs): Providers of customer services, e.g., loans, insurance, wealth management. These receive digitally signed data from FIPs via Aas and use it to extend requested services to customers.	503
4 Technology Service Providers (TSPs): Developers of the foundation modules that connect FIP and FIU modules to the Account Aggregators in the ecosystem. The API norms for Aas are common and standardised for all entities and defined by ReBIT.	60
5 Certifiers: Empanelled organisations providing independent certification of adherence to technical standards prescribed by ReBIT. Their certification enables FIPs, FIUs and AAs to become part of the AA ecosystem.	4

1. As of September 2024
 2. Certification is not mandatory
 Source: Sahamati analysis

●●● The Account Aggregator ecosystem is scaling up rapidly

>95 lakh

Monthly successful consents on AA

>INR 88,000 crore

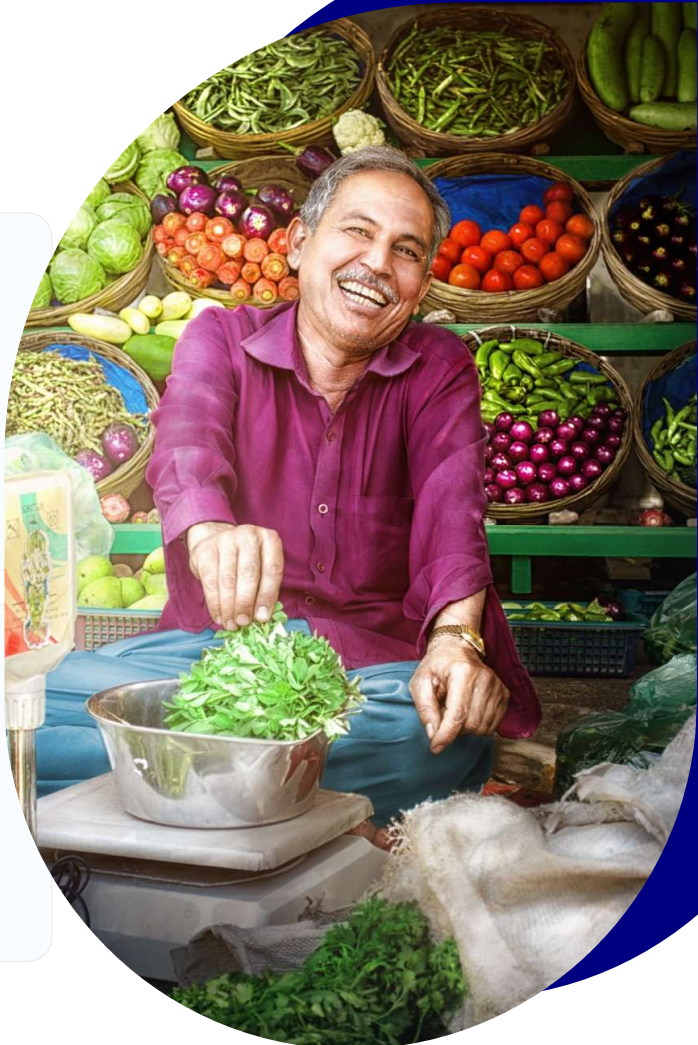
in value of loans disbursed through AA (cumulative)

>10 crore

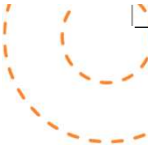
Accounts linked on AA (cumulative)

>2 crore

Customers that have availed PFM services

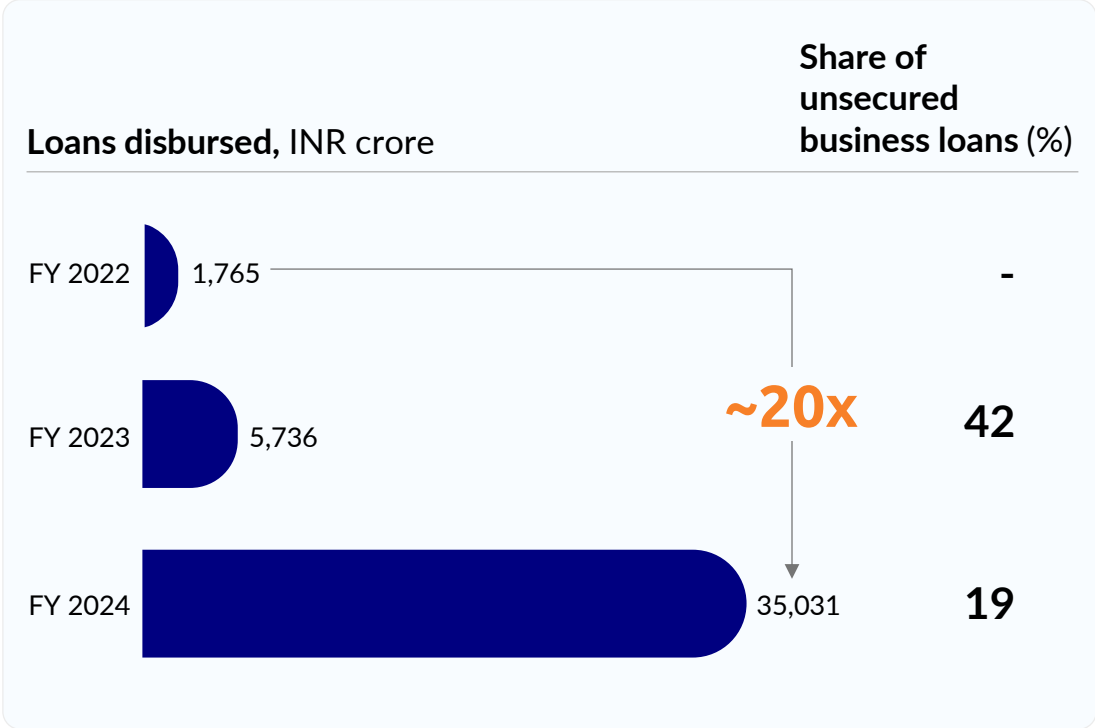


Source: Sahamati analysis




●●● Loan disbursements on the AA ecosystem have grown by 20 times since 2022 with the share of business loans at ~20%

The AA ecosystem has facilitated loan disbursements of over INR 88,000 crore across more than 9.5 million loans since its launch in September 2021

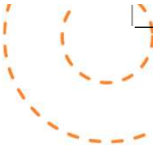


Source: Sahamati analysis

HIGHLIGHTS



- ~INR 13 lakh**
average ticket size of unsecured business loans
- ~INR 8,000 crore**
average loan disbursements per month, of which share of business loans is below 20%
- ~40,000 per month**
Number of business loans processed



●●● A variety of MSME data can be aggregated by the AA ecosystem to unlock a larger number of use cases

Data available / to be made available with AA

Data available

▶ Banking data	
Sole prop. CA	●
Partnership account	◐
Private limited corporate account	◐
▶ Pensions	●
▶ Insurance	
Life	●
▶ Stocks	●
▶ Mutual Funds	●
▶ Tax	
GSTR 1: Table 4- B2B Invoices	●
GSTR 3B: Summary Report	●
GSTR 2A: Buyer side invoices	◐
GST E-invoices	◐
GSTR 1: Table 5 (B2C large), 6 (Export Invoices), 7 (B2C Small), 9 (Debit-Credit Note), 12 (HSN wise summary)	◐
GST Return Filing Details of taxpayer and suppliers	◐

Prospective data sets for future accessibility

Data available

▶ Insurance	
Non-life	●
▶ Tax	
Income Tax Returns	●
▶ EXIM	
Export invoices	●
Import invoices	●
▶ Others	
GEM data	●
Fastag transactions	●
Utility bills	●
Telecom bills	●
e-Wallet transaction & balance	●
e-commerce sales	●

- Yes
- ◐ Under discussion
- Prospective data sets



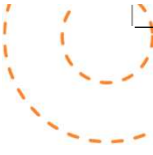
Source: Sahamati analysis, Expert inputs

Leveraging Open Finance and the AA ecosystem could enable greater formalisation of MSMEs

Access to open finance can support MSMEs to scale up over time and become more formalised

Type of MSME	Characteristics of lenders					High-impact segments for AA	xx% Share of MSMEs
	Data that could be potentially made available with AA						
	GST registered	Banking data	Alternative data ¹	Bureau coverage	Provide collateral		
GST-registered MSMEs ~20%	✓	✓	✓	✓	✓	Enterprises filing GST returns <ul style="list-style-type: none"> Term loans Working capital (OD/CC limits) Invoice-based financing Trade finance (LC/BG) Insurance, Business financial management Garment manufacturers (e.g., contract manufacturers) Regional tech services companies	
	✓	✓	✓	✗	✗		
Non-GST registered MSMEs ~80%	✗	✓	✓	✓	✓	Hyper-local businesses not filing GST returns <ul style="list-style-type: none"> Term loans Working capital (OD/CC limits) Cash flow based lending Local food processing units	
	✗	✓	✓	!	!		<ul style="list-style-type: none"> Working capital (OD/CC limits) Cash flow based lending Local photo/printing shops Neighbourhood auto workshops Tailoring businesses Kirana stores
	✗	✓	✓	✗	✗	Gig-economy workers <ul style="list-style-type: none"> Small-ticket unsecured lending Last-mile delivery partners Street vendors	
	✗	✗	✓	✗	✗		

1. Verified invoices, utility bills, shop certificates
Source: Expert inputs



●●● The Account Aggregator ecosystem enables faster and more secure data sharing that unlocks better service

No Medium Yes

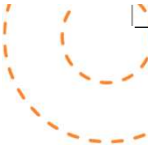
Data access by sources – comparison across key features

Features	Scanned document	Digital PDF	Net banking	Account Aggregator
Data recency	No	No	Yes	Yes
Success rates	5-10%	5-10%	15-30%	60-65%
Reliability	No	Medium	Medium	Yes
Data authenticity	No	Medium	Yes	Yes
Data privacy	No	No	No	Yes
Customer convenience	No	Medium	Medium	Yes
Turnaround time	No	Medium	Yes	Yes
Cost	No	Medium	Medium	Yes
Recurring data access	No	No	No	Yes

The AA ecosystem, with expanded data sources, can enable MSMEs to receive financing and value-added services

- Better risk management** on lending to lower risk costs due to better fraud mitigation (data from source), use of alternative data for underwriting and regular credit monitoring
- Segment-specific products** that consider specific needs, including the working capital cycles of customers, to enable asset-based, revenue-based, invoice-based and cash-flow based lending
- Enhanced service offering to include Business Financial Management** (value-added services and beyond banking)
- Faster approval** as documents and collateral (i.e., property ownership) can be verified quickly and securely
- Increased efficiency** (lower costs of processing and underwriting loans as it is done digitally and can be automated for micro/small segments)
- High discoverability and easy access to embedded finance** on aggregator platforms / networks

Source: Sahamati analysis



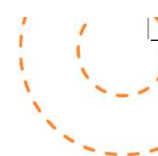
●●● AAs could unlock 15+ innovative use cases that can accelerate the journey of financial empowerment of MSMEs

Not yet active on AA

MSMEs		Banks / Financial Institutions			
Lending	Business Financial Mgmt.	Underwriting	Security assessment	Post sanction / Disbursement	Monitoring & collections
Revenue-based financing	Investment advisory	Identification of mule accounts	Lending against mutual funds / securities	Bank account verification eliminating need for penny drop	End-use monitoring of loan proceeds
Cash-flow based financing	Insurance (asset, keyman)	Better income estimation	Guarantor evaluation	Proactive adjustment of working capital limits	Monitoring for early warning signals
Invoice-based financing	Trade finance (LC/BG, forex)	Elimination of identity and forged data frauds	Verification of property / land records	Minimising parallel funding	Monitoring accounts of field agents

TSPs / Fintechs enable these use cases with tailored solutions for seamless implementation





Leverage alternative data for credit underwriting and limit enhancements through continuous business monitoring

CUSTOMER PROFILE



ROHAN

Business history:

- Sole proprietor who operates in a small agri-processing unit
- GST registered
- Has a regular set of suppliers and vendors

Financial history:

- Term loan secured by his factory

Need: Looking for short-term working capital loan ahead of the favourable harvest season

Enhanced cash-flow based lending using invoices data

1 Basic limit

Cash flow-based credit assessment of INR 3 lakh

Rohan is approved a credit line of INR 3 lakh (even though he is NTB with limited credit history) due to the following factors:

- **Stable, low-risk business operations**
- **Verified business:** Vintage of business, address proof
- **High cash-flow based imputed income:**
 - Imputed net cash flows across multiple GST returns
 - Invoice receipts and payments through bank statements

Low risk business practices:

- Assessment of the concentration and stability of his relationship with his reputed buyers



2 Enhanced limit based on strong cash flows

Credit limit enhanced to INR 4 lakh using alternative data on investments and economic activity

- Rohan's operations have shown a strong spike in recent months
- **High investments:**
 - FDs of INR 2 lakh across banks
 - Mutual funds of INR 1 lakh
 - Life insurance policy of INR 10 lakh
- **Financial discipline:** Financial discipline in paying telecom and utility bills
- **Economic activity:** Agri-specific data through eNAM and activity on allied platforms have indicated higher-than-normal trades in core commodity



3

Further enhancement of limits post-monitoring

Credit limit adjustments to INR 5 lakh post monitoring of end-use and financial discipline

- **End-use monitoring:**
 - End-use monitoring of funds which shows investment in capacity expansion
- **Business growth potential:**
 - Periodic monitoring of GST and banking data shows a consistent growth in turnover, expected cash flows and income
- **Financial discipline:**
 - Discipline in paying the interest



4

Relationship-based limit setting

Scope for higher limits as Rohan consolidates his relationship with this bank

Rohan has opened deposit accounts and enrolled multiple joint family members as part of the group relationship

- Details of joint account holders, group relationship value
- Provide higher limits to capture greater share of household spends



NEW POSSIBILITIES: AA-enabled key functionalities

- ✓ **360-degree credit assessment:**
Turnover based estimation (GST); income estimation based on bank statements and financial assets in form of FDs and mutual funds
- ✓ **Post disbursement monitoring for limit enhancements / renewals:**
Periodic pull of bank statements and GST returns to evaluate cash flows on an ongoing basis
- ✓ **Partner in business growth cycles:**
Access to alternative data to forecast key needs based on business cycle and potential
- ✓ **Family/group potential-based limit adjustments:**
Access to family/ linked accounts to evaluate true potential

Segment-specific products: Re-imagined truck purchase journey

CUSTOMER PROFILE



MANOJ

Business history:

- Started own GST-registered transportation business 1 year ago
- Before that, worked with a medium-sized fleet operator transporting goods from Ghaziabad to Dehradun/Haridwar for 5+ yrs

Assets:

- Purchased second hand truck from NBFC at high rates

Need: Wants to purchase a new LCV to grow his entrepreneurial journey

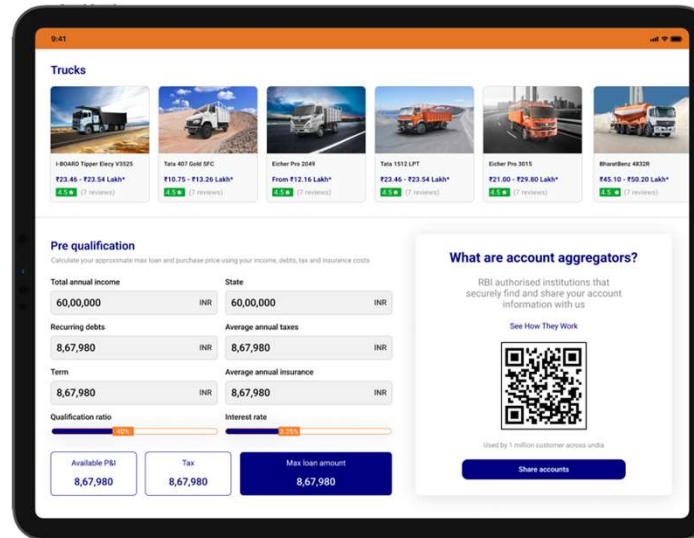
PRE-COMMENCEMENT OF BUSINESS

1

Manoj approaches a dealership for checking out the LCV models and financing options

2

Dealer enters Manoj's details



Transporter KYC
eKYC



Underwriting
Transporter info
and transaction data
from AA data



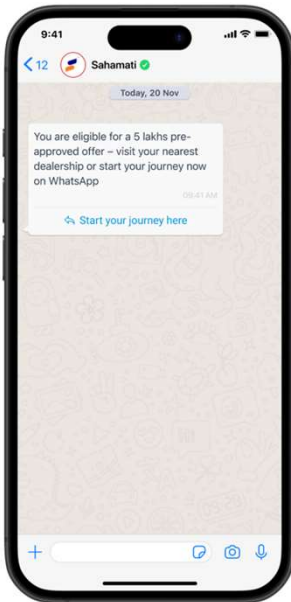
Vehicle insurance
eKYC, Digilocker



PRODUCT DELIVERY

3

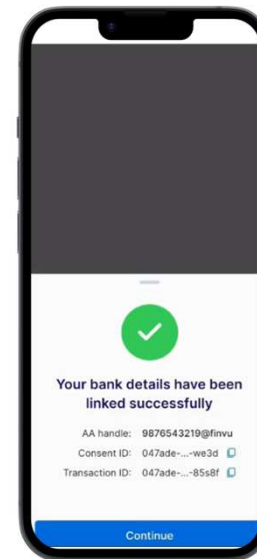
Gets pre-approval for INR 5 lakh based on FASTag and E-way bill



4

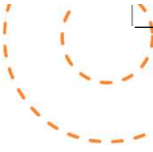
Customer digitally completes his journey for financing his LCV purchase

Agreement Digital agreements leveraging eSign	e-Sign
Payment Setup via UPI mandate/eNACH	UPI
Recurring consent Setup via UPI mandate/eNACH	NACH <small>NATIONAL AUTOMATED CLEARING HOUSE</small> UPI



NEW POSSIBILITIES: Leveraging digital public infrastructure

- ✓ Personalised loan offer based on customer requirement
- ✓ Platform to compare loan offers
- ✓ Personalised nudges on value-added offers post purchase



Enhanced service offering to include Business Financial Management

CUSTOMER PROFILE



ANAND

Business history:

- Sole owner of a successful furniture store in Gujarat
- Has grown his business over the past 7 years and now offers a diverse range of stylish, high-quality furniture
- Business is registered under GST and has annual turnover of INR 10 crore

Needs:

- Investment advice for financial goal-setting, managing risks, diversifying investments
- Life insurance policy for keyman

STEP 1

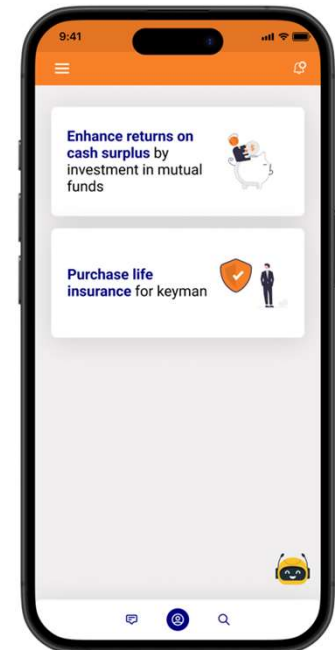
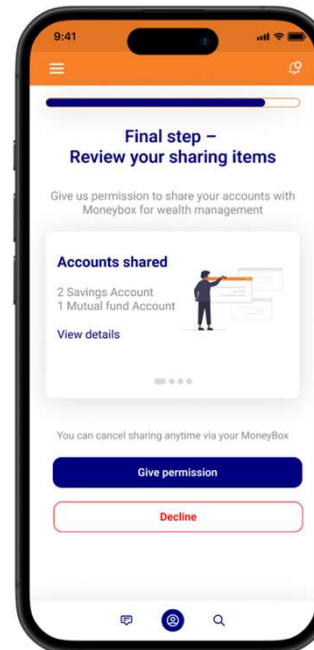
Visits investment advisory app for financial advice and shares his financial goals

STEP 2

Consents to share details of financial accounts (personal and business)

STEP 3

Receives two recommendations from robo-advisor on app

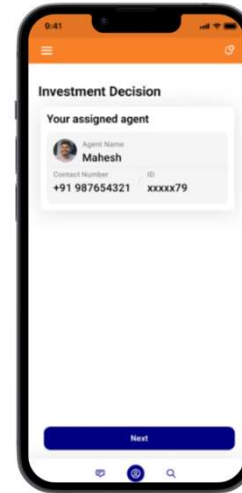
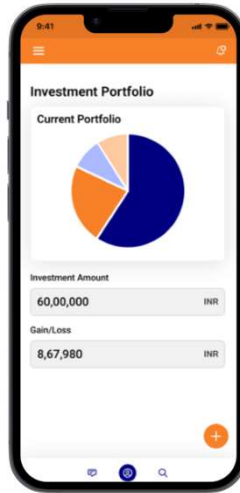


STEP 4a

INVESTMENT MANAGEMENT ADVISORY

Views a selection of assisted investment advisory services on making investments

- Gather the investments made and their performance
- Anand can initiate the investments decision by requesting for an agent to suggest funds
- Receives confirmation of purchase with the policy document

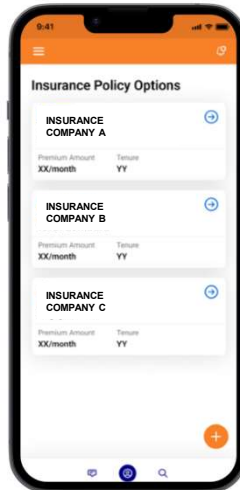


STEP 4b

INSURANCE ADVISORY

Compares all available policy options and makes a selection

- Is directed to insurance provider app with policy details and submission
- Receives confirmation of purchase with the policy document



NEW POSSIBILITIES: AA-unlocked customer benefits

- ✓ Solutions to manage and grow wealth while mitigating risks to the business
- ✓ Platform to compare insurance policies as well as mutual funds and help opt for the most suitable one
- ✓ Personalised risk management and investment advisory services

USE CASE - ILLUSTRATIVE

Fast approval and increased efficiency in offering loans to street vendors under the PM SVANidhi scheme¹

CUSTOMER PROFILE



ADITYA

Business history:

- Street vendor of fruits and vegetables
- Vending since 5+ years

Needs:

- Working capital loan for trading fruits

STEP 1

- Send application form to Aditya via WhatsApp / SMS

STEP 2

- Vendor/ assisted representative fills the loan application form

STEP 3

- Consent via AA
- Verify Aditya's bank details
- Establish bank account vintage and activity levels

STEP 4

- Instant loan approval with no need for Aditya to collect his passbook and bank statement

NEW POSSIBILITIES: AA-unlocked customer benefits

- ✓ Seamless and intuitive assisted/ DIY journey for loan sanction
- ✓ Enables genuine street vendors to get easy participation in the government run scheme
- ✓ Customer identity verification enabled for risk management
- ✓ Empowerment and access to funds to informal, NTC customers

1. PM Street Vendor's AtmaNirbhar Nidhi (SVANidhi) is a government initiated micro-credit facility for street vendors. This is an illustrative use case to demonstrate how the AA ecosystem could improve approval time and efficiency in the SVANidhi loan application and approval process



4

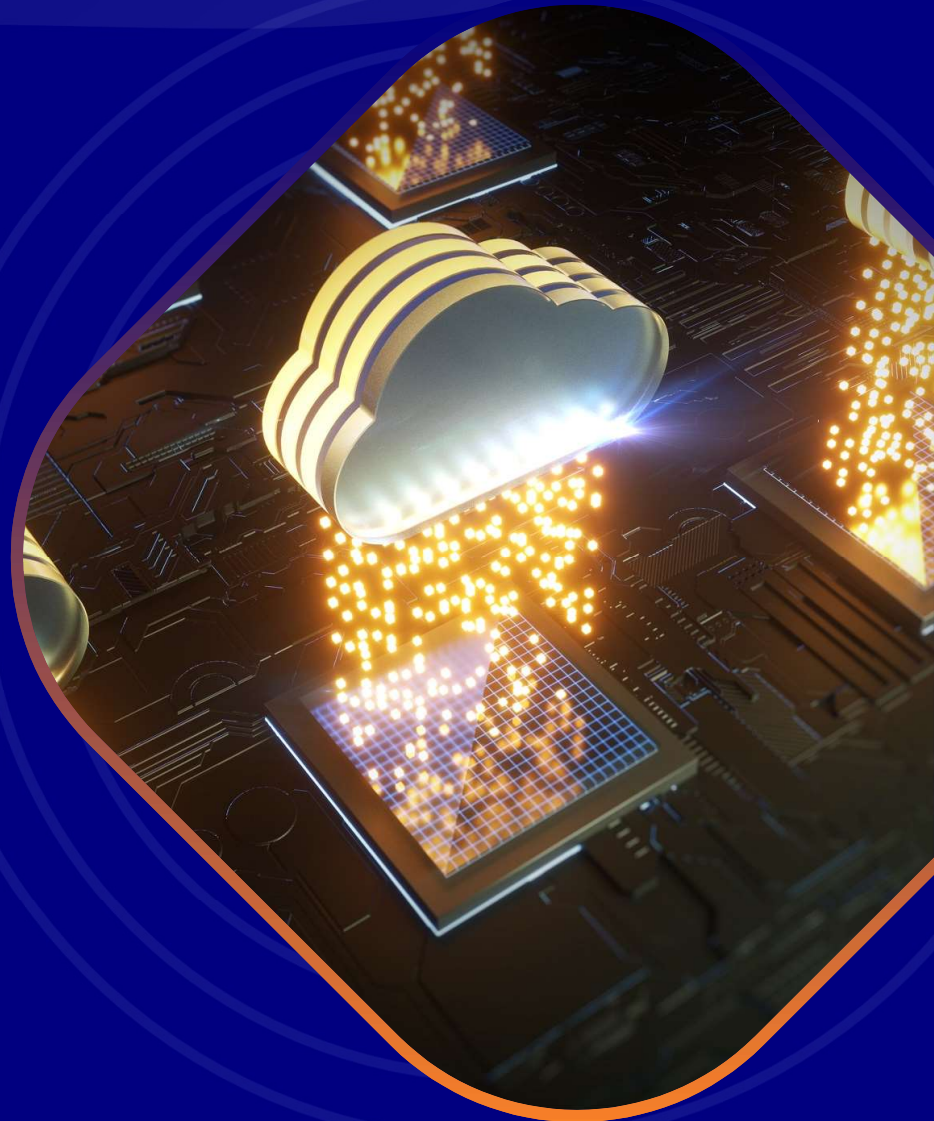
Scaling Open Finance: The way forward to realise impact

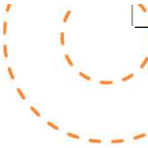
Open Finance, enabled by a robust AA ecosystem, can transform MSME inclusion and empowerment in India. Appropriate guardrails and enablers could further strengthen the existing AA ecosystem, boosting the adoption of AA standards and protocols.

Transformative unlocks across the three layers of the AA ecosystem could enhance its impact on MSMEs.

- **At the engagement layer:** Ensuring the fair, appropriate use of MSMEs' personal data
- **At the delivery layer:** Unlocking greater capabilities by expanding the data set and enabling interoperability
- **At the enablement layer:** Maintaining a robust governance mechanism through self-regulatory organisations

These unlocks could accelerate the formalisation of MSMEs, from around 35 percent today to around 50 percent in the next 5 to 7 years. Their formalisation could in turn unlock greater growth for financial institutions, generating more than INR 6 lakh crore in revenues with around 15 to 20 percent lower risk costs.



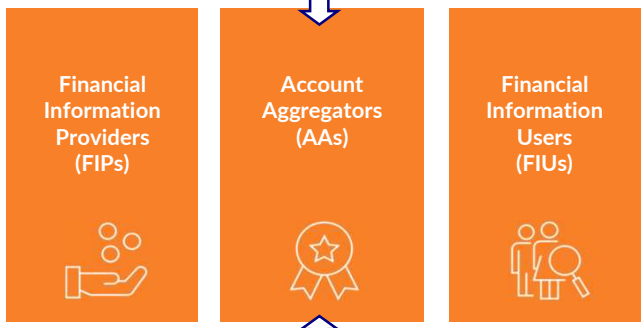


Strengthened AA framework, with appropriate guardrails, can help foster adoption of Open Finance to support MSMEs

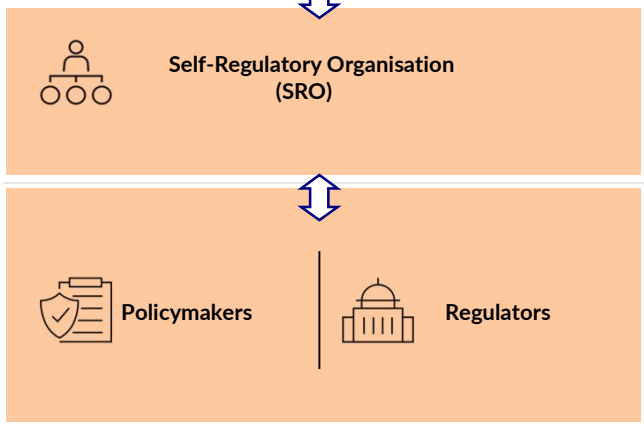
Engagement layer
Customised solutions based on fair use of data



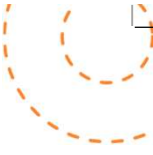
Delivery layer
Financial institutions leveraging customer data to offer innovative solutions



Enablement layer
Robust governance mechanism fostering transparency and accountability



- 1 MSME customers – Data principals**
 - Choice of Account Aggregators by implementing interoperability
 - Standard/explicit consent management experience for the financial sector, to enhance trust of MSME customers in sharing their data
 - Access to cross-sectoral grievance raising mechanism with effective dispute resolution
- 2 Financial Information Providers (FIPs) – Data custodians**
 - Provide an economic model to optimise usage
 - Ensure high SLAs for data delivery and data quality
- 3 Account Aggregators (AAs) – Consent managers**
 - Build a sustainable and technologically competitive business model with transparent pricing
 - Enable interoperability amongst AAs via a central routing service using automated rule engine
- 4 Financial Information Users (FIUs) – Data fiduciaries**
 - Establish AA as the single channel access for all financial data required to serve MSMEs
 - Adhere to the fair use framework, codes of conduct and resilient data security norms
- 5 Self-Regulatory Organisation (SRO) – Standard setting and governance**
 - Define framework that promotes and maintains fair use of AA via self-regulation
 - Increase participation and trust in AA ecosystem by building MSME customer awareness
 - Establish technology and standardisation of protocols and APIs to enable easy adoption
 - Foster innovation by creating a sustainable commercial model for FIPs, AAs and FIUs
 - Ensure high quality of service along with dispute resolution and grievance redressal
- 6 Policymakers and Regulators – Could consider possible guidelines such as the following, for stronger enforcement**
 - Lay down the scope of AA in the overall data infrastructure
 - Define areas of close cooperation across DPIs with AAs as standard consent mgmt. providers aligned with DPDP Act
 - Self-Regulatory Organisation(s) for the AA ecosystem
 - Improve implementation of cross-sectoral reciprocity
 - Foster a competitive ecosystem of consent managers, avoiding concentration risk



●●● Six transformative unlocks could boost the impact of the AA ecosystem for MSMEs



Engagement layer

- 1 MSMEs are offered user-friendly control over consent for data shared with AAs ensuring fair use
 - Simplified consent process by standardising the consent management experience
 - Purpose limitation applies to data shared with FIUs by specific use cases to prevent misuse of data
 - Data is retained only for as long as necessary to fulfill the purposes for which it was collected
- 2 Organisations comprising the AA ecosystem (AAs, FIPs, FIUs) can be held accountable by MSME customers for data handling practices with clear consequence management

Delivery layer

- 3 Access to an expanded set of DPI data on MSMEs to enhance use cases
 - Bank account data: Partnership account, private limited corporate account
 - GST return data: GSTR -1 (other than table 4 that is available), GSTR-2A (buyer side invoicing)
 - Trade data: EDPMS/IDPMS invoices
 - Alternative data: GeM data, utility bills, shop certificates, Inventory, FASTag
- 4 Enable interoperability amongst AAs via a central routing service to enhance the success rates of data pulls and customer experience

Enablement layer

- 5 Self-Regulatory Organisations (SROs) for Account Aggregators registered with RBI as NBFC-AAs
- 6 Drive customer awareness through educational campaigns and incentive schemes to improve trust and adoption

●●● Open Finance can accelerate formalisation of MSMEs and drive significant growth for financial institutions

**>INR 80
lakh crore**

MSME loan book by FY 2030

**15-20%
reduction**

*in GNPA's due to more
effective credit monitoring*

**>INR 6
lakh crore**

*NIM and fee revenues by
FY 2030*

**>30%
revenue share**

*from fee income (includes
non-fund based credit)*

The AA-enabled ecosystem could accelerate growth of India's formalised MSME segment from

~35%
today

to

~50%
over the next
5-7 years

Note: The projected growth of the loan book from INR 24-25 lakh crore to ~ INR 80 lakh crores over the next 5-7 years could be primarily due to increased penetration of informal micro and micro sub-segments and enhanced credit limit on the back of sophisticated underwriting capabilities with better income/cash-flow estimation. The NIM % has been assumed as constant in the next 5-7 years; fee income could grow for all sub-segments with increased implementation of additional use cases (e.g., Business Financial Management, trade finance)

Source: MSME Annual Report 2022-23; MSME Pulse report; Udyam registration portal

Disclaimer

This report is intended to capture the challenges and the potential scope for expanding the Open Finance ecosystem vis-a-vis India's MSMEs over the coming years.

It is based on information and data obtained from several sources through primary and secondary research. Modelling analyses included in the report are dependent on externalities and should not be treated as conclusive outcomes.



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