



Confederation of Indian Industry

Financial inclusion through technology and literacy in India: Strategies for sustainable growth

December 2024



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Foreword

It is with great pride that I share the report titled "Financial Inclusion through technology and literacy in India: Strategies for sustainable growth", a collaborative effort between Ernst & Young (EY) and the Confederation of Indian Industry.

This insightful report is the result of tireless efforts led by Vijay Rai, Chairman of the CII Delhi Committee on Technology. It underscores the critical role of technology and financial literacy in driving inclusive and sustainable economic growth, providing actionable strategies for bridging gaps and empowering communities.

As technology continues to evolve at an unprecedented pace, its impact on various sectors—ranging from digital payments, blockchain and artificial intelligence to IoT and cloud solutions—has the potential to transform financial systems, improve accessibility and drive economic inclusion. This report delves into these emerging technologies and their applications, offering a roadmap for leveraging innovation to address challenges in the financial sector.

The findings in this report are especially relevant in the context of India's journey towards a \$5 trillion economy, where technology adoption in financial services will play a pivotal role. With contributions from industry experts, policymakers and technology leaders, this document provides a comprehensive view of the future possibilities and the steps needed to realize them.

This initiative reflects our collective commitment to innovation, sustainability and inclusivity, which are core to CII's mission. I encourage you to explore the findings and recommendations within the report and utilize them to inform your strategies and initiatives.

Together, let us continue to foster an environment of collaboration and innovation to achieve financial inclusion and sustainable development.



Jaideep Ahuja

Chairman, CII Delhi

Foreword

Digital financial inclusion is a key enabler of socio-economic growth and, when fueled with technology innovation and collaboration, has the potential to realize our collective dreams of “Atmanirbhar” and “Viksit Bharat”. India’s digital journey is a testament to this tripartite partnership between government, industry and civil society (JAM Trinity).

The rapid growth of financial technologies has transformed the landscape, offering unprecedented opportunities for financial inclusion. It is a huge task for all of us, as we strive to achieve the United Nations SDGs, besides building pathways for promoting economic growth, improving poverty and improving the living standards of people. Despite efforts and interventions made by nations, including India, we see a significant number of people either remain excluded or marginalized from formal financial systems. This disparity or exclusion requires innovative financing mechanisms, education, awareness and solutions at various levels in order to empower the lesser privileged ones and those who need and should gain the most.

Therefore, a renewed impetus on rejuvenating **five As of financial inclusion**—access, availability, affordability, awareness and appropriateness cannot be overstated.

This research-based report navigates and dives deeper into the complexities of the modern-day financial landscape and does a comprehensive analysis at the intersection of technology, policy, demographics and key financial inclusion challenges and drivers. Both the teams at CII, EY and our Lead Author Sheetal Pratik have tirelessly worked towards exploring the latest trends, challenges, obstacles, opportunities and drivers in the global space including several widely known initiatives (PMJDY) taken by Government of India aimed at creating a digitally empowered society.

This report provides a timely and insightful analysis of the progress made in digital financial inclusion in India, offers recommendations, expert insights for policymakers, practitioners, stakeholders, researchers and highlights the lessons learned and best practice examples that can be applied in our own operating contexts.

I am confident that this report shall serve as a valuable resource for all those committed to advancing and bridging the financial inclusion gap in India and beyond. It will also add in furthering conversation and inspire innovation and collaboration to promote sustainable, inclusive and equitable development.



Dr. Vijay Rai

Chairman: CII Delhi Emerging Technologies & IT/ITES Panel and
Chief Growth Officer: Asia Pacific Region, DayOne Technologies USA

There is a growing global consensus that financial inclusion is integral to the overall economic welfare of both individual nations and the world.

As of March 2024, India's Financial Inclusion (FI) Index stood at 64.2, up from 60.1 in March 2023, indicating enhanced financial inclusion across the country. The Pradhan Mantri Jan Dhan Yojana (PMJDY), launched in 2014, has facilitated the opening of over 54 crore accounts to date, significantly improving financial access for unbanked populations. Notably, India has closed the gender gap in financial account ownership, achieving parity between men and women—a marked improvement from 2017, when there was a six-percentage-point disparity.

Globally, 76% of adults had an account at a financial institution or through a mobile money provider as of 2021, up from 62% in 2014. In Sub-Saharan Africa, 33% of adults had a mobile money account in 2021—the highest proportion globally—highlighting the pivotal role of mobile banking in advancing financial inclusion. The COVID-19 pandemic further accelerated the adoption of digital payments, with over 50% of adults in developing economies making or receiving digital payments in 2021.

India's remarkable strides in financial inclusion are evident from the fact that an estimated 80% of the population is now banked, compared to 53% in 2014. This progress reflects a multi-faceted approach, combining innovative government policies, technological advancements, and targeted initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), the Aadhaar biometric identification system, and the development of a robust Digital Public Infrastructure (DPI) such as the Unified Payments Interface (UPI).

While India's achievements are impressive, there is still much work to be done before the country can be considered among the global leaders in financial inclusion. Areas of opportunity remain while account ownership has increased from 53% in 2014 to 80% today, 35% of accounts in India are inactive. Women are disproportionately affected, with 32% having inactive accounts compared to 23% of men. In digital payments, a notable gender gap persists—45% of men have made or received digital payments, whereas only 32% of women have done so.

India finds itself at a crossroads. Despite a world-class DPI infrastructure, there is significant potential to further enhance capabilities through automation, artificial intelligence (AI) technologies, data analytics, cyber-physical systems and digital transformation.

This report, supported by secondary and primary analysis across India, explores innovative approaches to financial literacy and the provision of digital access to inclusive government schemes and financial products. The research highlights the transformative potential of technology and financial literacy in empowering under-banked populations, fostering economic resilience and creating sustainable growth opportunities.

We hope the insights presented in this report will drive meaningful dialogue among ecosystem collaborators and help position India as one of the highest-ranked nations in financial inclusion. Such progress will not only contribute to India's economic prosperity, but also enhance global economic growth.



Saurabh Chandra

Senior Partner and National Leader
Financial Services Consulting (Domestic), EY India





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Enhance access and usage of quality financial services

Financial inclusion ensures that people and businesses can easily access useful and affordable financial services – such as banking, loans, insurance and ways to send or receive money – that fit their needs and are provided responsibly, sustainably and inclusively.

Despite advancements in financial technology, a significant portion of the global population remains unbanked or under-banked, particularly in developing countries and marginalized communities. This lack of access hinders economic growth, exacerbates poverty, and limits opportunities for individuals to improve their livelihoods. Promoting financial inclusion is therefore critical for fostering economic development, reducing inequality, and enabling people to participate fully in the global economy.

Financial inclusion is a road to a more equitable, prosperous society

Financial inclusion is crucial, as it helps individuals and businesses access the fundamental financial services they need. With access to banking services, credit, insurance and secure payments, people can manage their money better. This access not only empowers individuals to improve their quality of life but also stimulates economic activity by fostering entrepreneurship and enabling more efficient allocation of resources.

The five As of financial inclusion – access, availability, affordability, awareness and appropriateness – are fundamental components that together ensure financial inclusion strategies are thorough and effective.



5 As of Financial inclusion

Access

Ensuring access by removing physical, geographical, and administrative barriers.

Availability

Service diverse customers through varied financial products.

Affordability

Cost-effective financial services for low-income individuals and small businesses.

Awareness

Increase adoption of financial services through financial literacy

Appropriateness

Fulfilling customized needs through tailored financial products

Source: "et al Kaur" - <https://ierj.in/journal/index.php/ierj/article/view/995/1001>

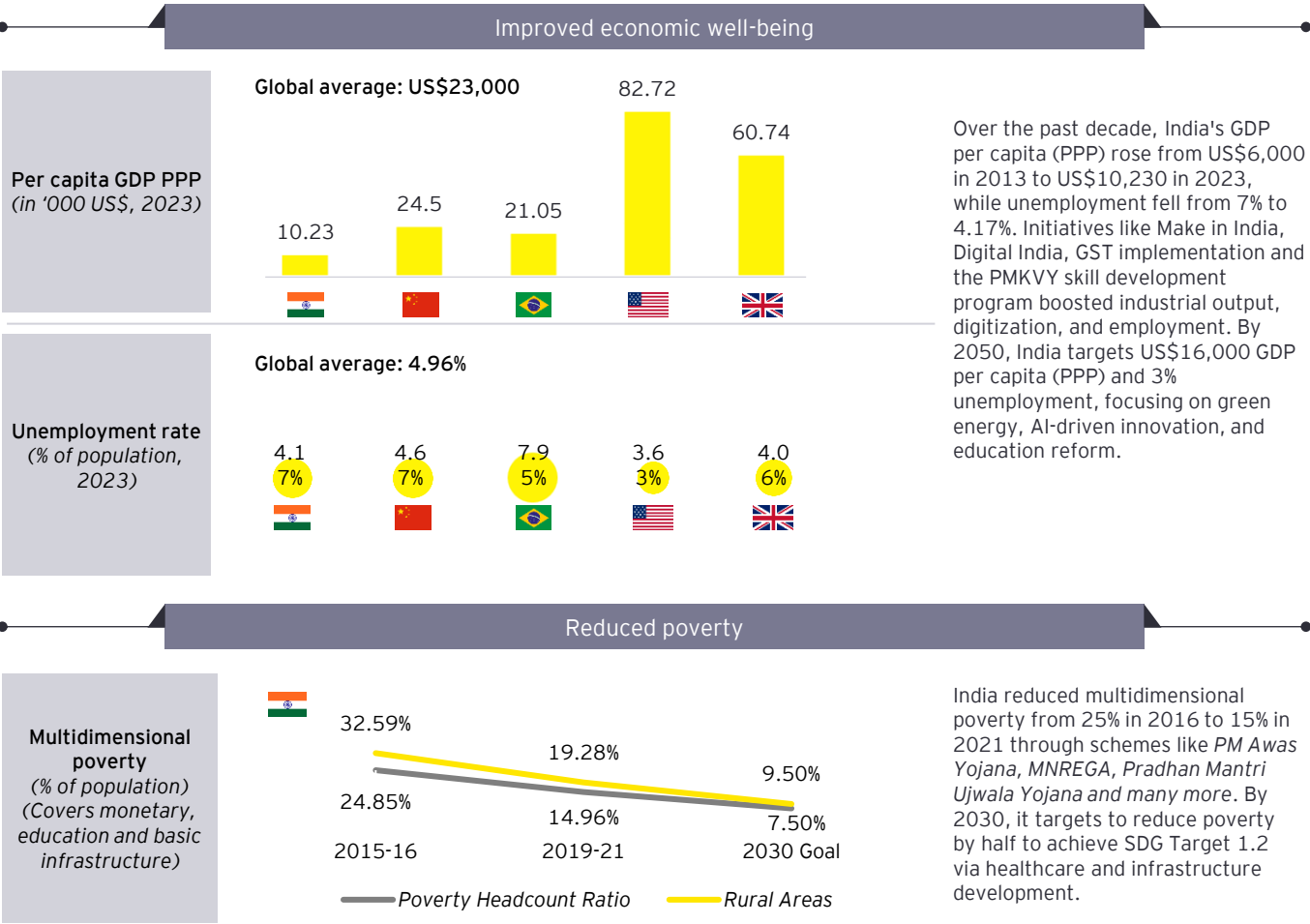


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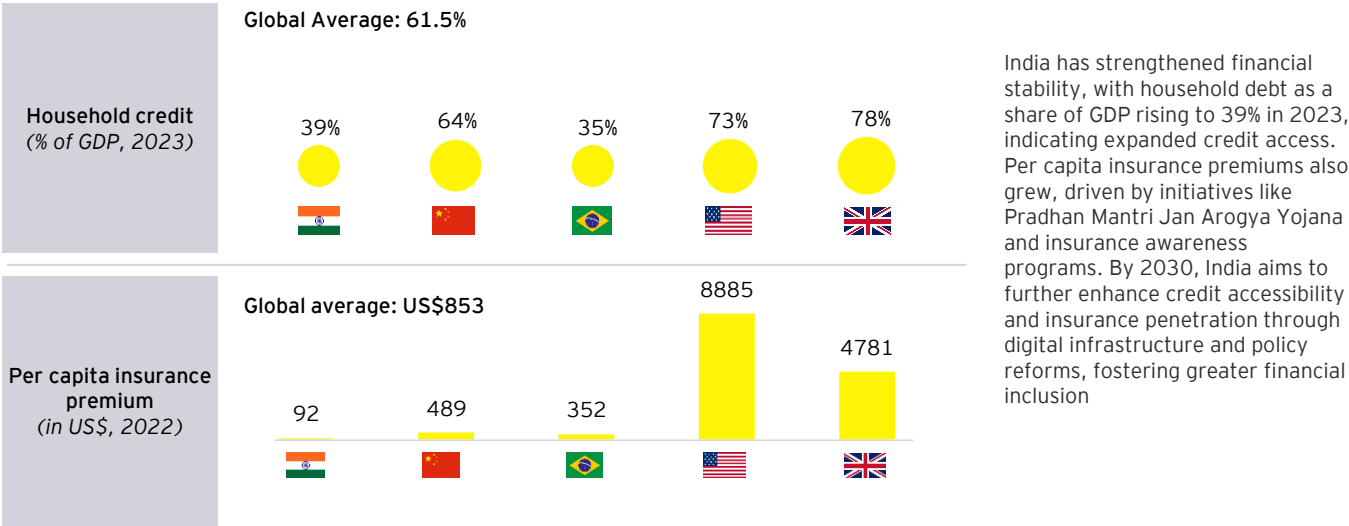
Financial inclusion: Essential now more than ever

Financial inclusion empowers individuals by providing access to essential financial services. As more people join the formal financial system, money circulates more freely, increasing disposable income through access to credit and secure savings. This enhanced flow of money boosts spending on goods and services, which in turn drives production and creates jobs.

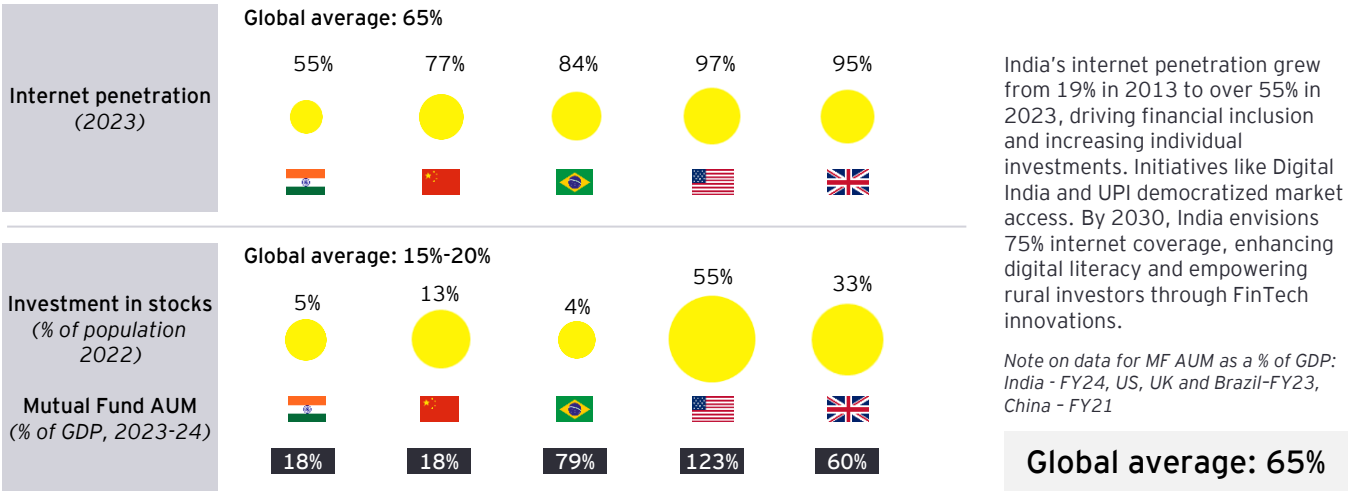
Many macro and micro-economic factors contribute to the overall financial inclusion. While India has made huge progress over the last decade through various government initiatives, there is further room to improve and achieve the Viksit Bharat mission by 2047.



Enhanced financial stability



Expanded access to financial markets



Source: World Bank, United Nations, IMF, IIF SEBI, RBI

Focus on the above parameters causes a ripple effect, leading to wealth generation, fostering individual prosperity while promoting macroeconomic stability and sustainable growth.

3

Bridging the divide: India's transformative journey towards financial inclusion

Financial inclusion supports seven of the 17 Sustainable Development Goals. The G20 and the World Bank Group are committed to promoting it as a vital tool to reduce poverty and fostering shared prosperity.

Financial inclusion will help reduce the disparity between urban and rural areas. As per EY analysis, urban per capita income is 1.6 times, and consumption is 1.7 times higher than those in rural regions.

India's financial inclusion: A decade of exponential progress led by PMJDY

	Progress	Key enablers
2000-2004	<ul style="list-style-type: none">Number of accounts: 4.57 lakh (2% CAGR)Accounts per capita: 0.38	<ul style="list-style-type: none">RBI's Khan Commission assessed financial inclusion in India and offered recommendations
2005-2009	<ul style="list-style-type: none">Number of accounts: 6.62 lakh (8% CAGR)Branch per lakh population: six	<ul style="list-style-type: none">Number of scheduled commercial bank rose to 8,045RBI approved Business Correspondents Model for better outreach
2010-2014	<ul style="list-style-type: none">Number of accounts: 12.26 lakh (11% CAGR)Population with bank accounts: 53%Accounts per capita: 0.66	<ul style="list-style-type: none">Aadhar scheme was launchedRBI issued guidelines for banks to partner with CSCs and VLEsPradhan Mantri Jan Dhan Yojana (PMJDY) was launched in 2014
2015-2019	<ul style="list-style-type: none">Number of accounts: 19.72 lakh (6% CAGR)UPI growth: 900% in 2017Increase in digital players: 160% YoY in 2017	<ul style="list-style-type: none">India stack launched in 2016UPI launched in 2016; BHIM launchedRBI launched National Strategy for Financial Inclusion
2020-till date	<ul style="list-style-type: none">Branch per lakh population: 13Population with bank accounts: 77% (2021)Accounts per capita: 1.5PMJDY accounts: 54 crore (2024)RBI Financial Index: 64.4 (2024)	<ul style="list-style-type: none">RBI introduced Financial Inclusion Index

Source: RBI, PIB, PMJDY Website, EY analysis

To accelerate financial inclusion, the government could provide low-cost smartphones to rural women and set up centrally located kiosks accessible to several nearby villages. These kiosks would stay in each location for six months, offering engaging audio-visual presentations on financial instruments, demonstrating ease of use, and providing individual counseling and support through resource persons. By taking a long-term view of training programs, these interventions aim to create a sustainable impact on financial literacy and inclusion.

Rural India faces significant barriers to financial inclusion. Low literacy levels and limited exposure to financial instruments hinder understanding. Traditional moneylenders remain a primary source of credit, while low incomes prevent regular savings. Women, often excluded from financial decision-making, resort to selling jewelry in emergencies. Limited access to digital tools exacerbates these challenges, hindering financial empowerment.



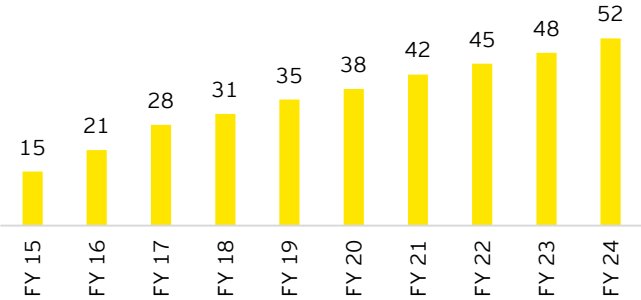
Sanghamitra Bose

Founder and CEO
Sshrishti Trust

Financial inclusion critically enables global development; initiatives like India’s PMJDY and UPI demonstrate remarkable progress, though further efforts must bridge regional gaps in reach and transaction value.

Pradhan Mantri Jan Dhan Yojana (PMJDY)

PMJDY Accounts (in crore)

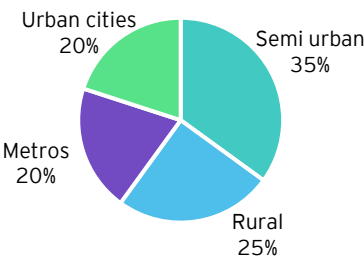


Source: PMJDY Website

- Account access to ~80% of Indian population
- 56% women beneficiaries under this scheme
- ~65 lakh accounts opened in Delhi state (90% urban)

UPI

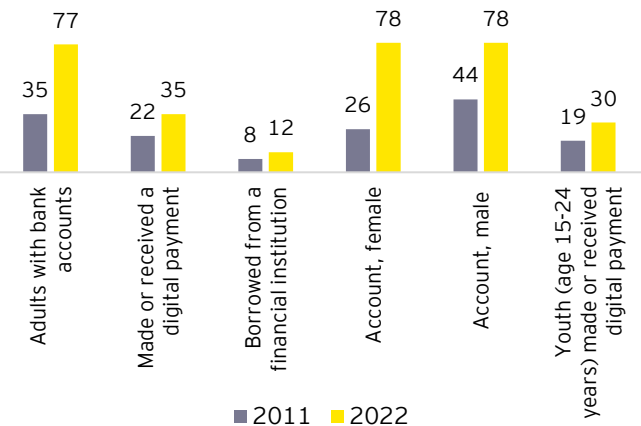
UPI transactions



Source: RBI

- Year-on-year growth in transactions - 45%
- Year-on-year growth in transaction value - 35%
- Penetration among women users remains a challenge - 25% women users (even fewer in semiurban and rural). Linkage of mobile number to account remains a key challenge.

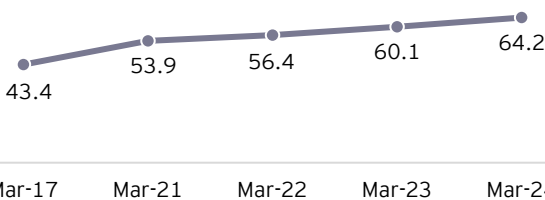
India's performance across indicators of financial inclusion and financial education (% of the population)



Source: World Bank

- India has done well, in terms of providing access to bank accounts to its population over the last decade
- Activation and usage of accounts remains a challenge
- Adoption of digital payments and borrowing through formal channels is still low

RBI's Financial Index



Source: RBI

India's progress in Financial Inclusion was led by:

- India stack
 - Aadhaar and Digi Locker helped in simplifying KYC
 - Cashless layer - UPI being the key driver
- Government focus - schemes like PMJDY

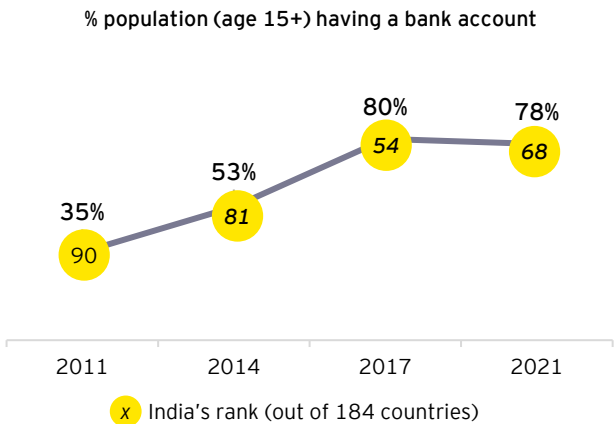
As per rough estimates, if India had continued its traditional growth path, it would have taken about 47 years more to reach a point where 80% of adults had bank accounts.

Source: The design of digital financial infrastructure: lessons from India



3.1 Igniting India's transformation: A global imperative

As per the Principal's Global Financial Inclusion Index¹, India has made significant strides in financial inclusion, climbing to the 22nd position (out of 41 economies) globally.



Source: World Bank

As per Principal's FI index, India's Overall Rank is 22nd in 2024 vs. 26th in 2023 (out of 41 economies)

- India surged to 10th spot, in "Financial System Support" category, driven by FinTech innovation.
- "Access to credit" improved to 31st position.
- "Access to bank accounts" is ranked in the 31st position.
- India ranked 38 in the overall "Government Support"

Source: Principal's Global Financial Index, 2024

While India's progress is impressive, it can still level up by learning from the top performers.

Singapore	Hong Kong	South Korea	Kenya	Ghana
Global Financial Inclusion Index Rank 2024				
#1	#2	#3	#34	#41
<ul style="list-style-type: none">Leveraging advanced digital banking platforms and government initiativesEnabling seamless, low-cost transactions across all income levels	<ul style="list-style-type: none">Easy-to-use digital payments solutionBridging gaps for unbanked individuals and enhancing access to financial services	<ul style="list-style-type: none">Innovative policies and widespread adoption of digital walletsMaking banking services accessible to rural and deprived communities	<ul style="list-style-type: none">Launched SMS-based mobile money service in 2007, financial inclusion rose from 26% in 2006 to 84% in 2021Central Bank and service providers partner to set usage charges and iterate legislation	<ul style="list-style-type: none">Set target to achieve 85% Financial Inclusion by 2023; achieved 96% by 2021Fueled by FinTech innovations, young population, increasing mobile phone penetration, and government support

Technology driven initiatives to boost financial inclusion				
PayNow	Octopus card	KakaoPay	M-Pesa	Mobile Money (MoMo)
More than 55% population are active users	98% of people in Hong Kong aged 15 to 64 possess Octopus Cards	75% population in South Korea uses KakaoPay	No user is more than 3 km away from an M-Pesa agent	Mobile money accounted for ~83% of electronic transactions in first half of 2024

¹<https://secure02.principal.com/publicsupply/GetFile?fm=EE12612&ty=VOP>

4 Key drivers

So far, there has been noteworthy progress and most of the foundations are laid down. However, it is also essential to address the current challenges. This is the right time to consider how to ride on the Fourth Industrial Revolution by converging all the forces across:

- Automation
- Artificial intelligence (AI) technologies
- Connected devices
- Data analytics
- Cyber-physical systems and
- Digital transformation

Building future-ready FinTech products around the fifth Industrial Revolution are being considered, thus having exponential growth to amplify the FI index.

There are some short-term wins and some near long-term recommendations to get thrust at the ecosystem level.

Identity and digital security are crucial because rapid adoption of digital services without adequate education has led to a growing threat of identity theft and evolving cybercrimes affecting all segments of society. Therefore, as more citizens embrace digital technologies, education and awareness of all aspects of digital security must take prominence.



Mugdha Bhargava
Co-founder, MYIRI



5

Suggested levers to ensure financial inclusion

Leveraging technology and adopting a multi-stakeholder approach for sustainable financial inclusion



Source: RBI

Achieving financial inclusion hinges on implementing various strategies that make financial systems more accessible and equitable for everyone. Among these strategies, financial literacy and technology emerge as the two fundamental levers. Financial literacy equips people with the knowledge to make informed financial decisions, while technology provides innovative solutions to overcome traditional barriers to access.

Together, they serve as underlying enablers for most other initiatives, driving the effectiveness of efforts to create a more inclusive financial landscape.

Financial literacy

Regulatory support and policy frameworks

- Simplify access to financial services by reducing barriers
- Ensure consumer protection and build trust

Government-led programs and subsidies

- Subsidized loans and direct benefit transfers
- Reduce costs and provide incentives to encourage usage

Collaborations with NGOs and community organizations

- Tailored financial literacy programs and products for remote communities
- Enhance trust and encourage engagement with formal financial services through community-based outreach

Technology

Digital banking and mobile money

- Provide digital access, avoiding branch visit
- Enhance convenience in remote areas

Innovative FinTech solutions

- Use AI, Blockchain, and data analytics to develop new financial products and services
- Offer user-friendly, personalized solutions

Incentives for digital transactions

- Reward usage of electronic payment methods
- Increase transparency and security measures to boost user confidence in digital transactions

Financial literacy is equally crucial in ensuring that individuals can effectively use the financial services made available through technological advancements. Bridging the digital divide and enhancing awareness about financial tools available will improve usage, which will further educate the users

Looking ahead, AI-powered apps will not only facilitate transactions but also help users **build long-term financial health through personalized savings plans, budgeting tools, and goal-based investments.** These advancements make financial services ubiquitous **reach the last mile** and foster resilience through inclusive systems

Given India's diverse languages and cultures, successful digital literacy programs must be tailored to meet specific audience needs and sustained through ongoing support. Ensuring long-term effectiveness requires securing resources and proactively addressing challenges.



Mugdha Bhargava
Co-founder MYIRI

Access to technology-enabled financial services empowers beneficiaries to accept and save money electronically, build credit histories for small loans, and enhance household income by transitioning to skilled trades. This increases disposable income and resilience to economic hardships, with financial literacy playing a crucial role in driving awareness, savings, borrowing and understanding rights.



Jayant Prasad
Head of climate focused NBFC

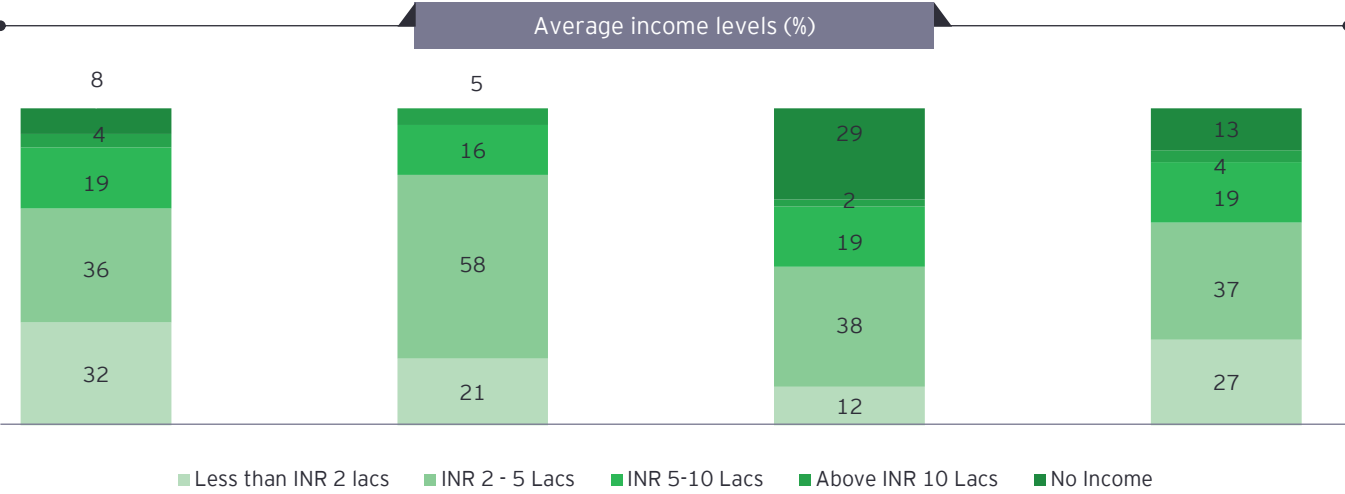
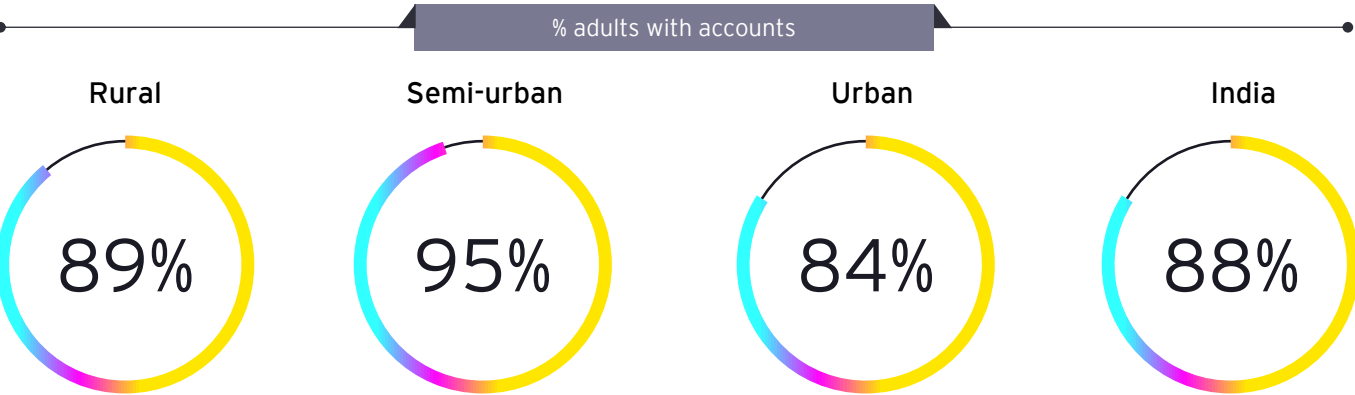
Combined emphasis on technology and literacy addresses both the availability of quality services and the ability of individuals to use them effectively, driving the future of digital financial inclusion.



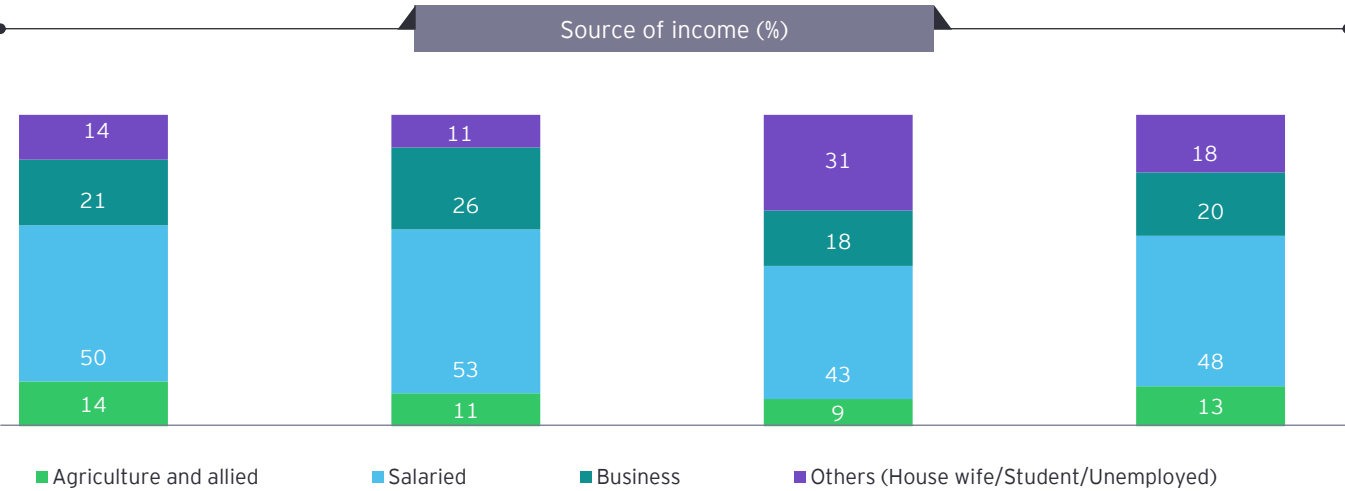
5.1 Bharat speaks: A dip stick analysis of the current state of financial inclusion in India

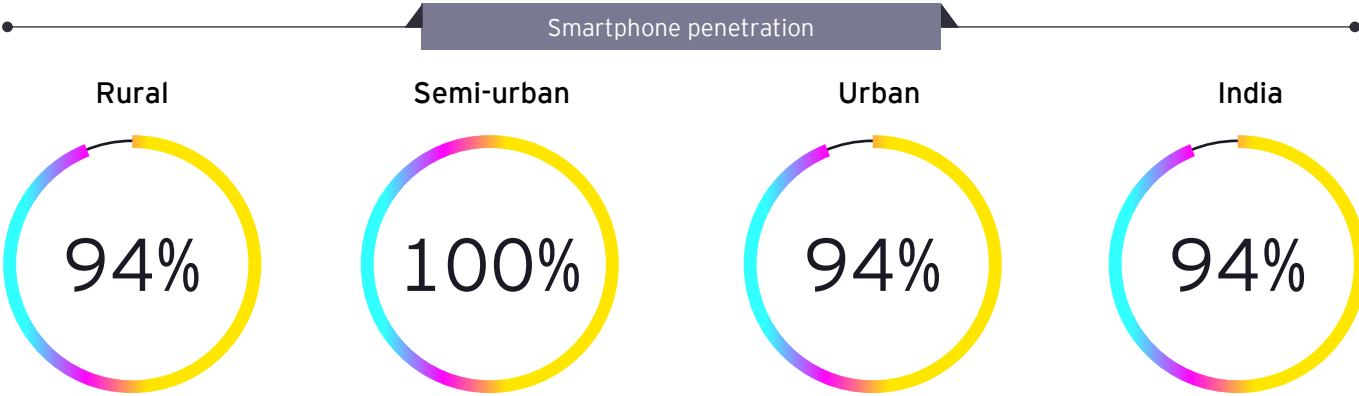
The purpose of this research is to evaluate the current state of financial inclusion in India, with a focus on the diverse experiences. We surveyed a sample of 1,033 respondents across key demographic segments, including women and rural populations. Out of the 1,033 respondents surveyed, approximately 73% were from rural areas, while female respondents constituted 22% of the total sample.

The sample was distributed across various states, including Delhi, Tamil Nadu, Karnataka, Haryana, Maharashtra, West Bengal, Uttar Pradesh, Bihar and the Northeast.

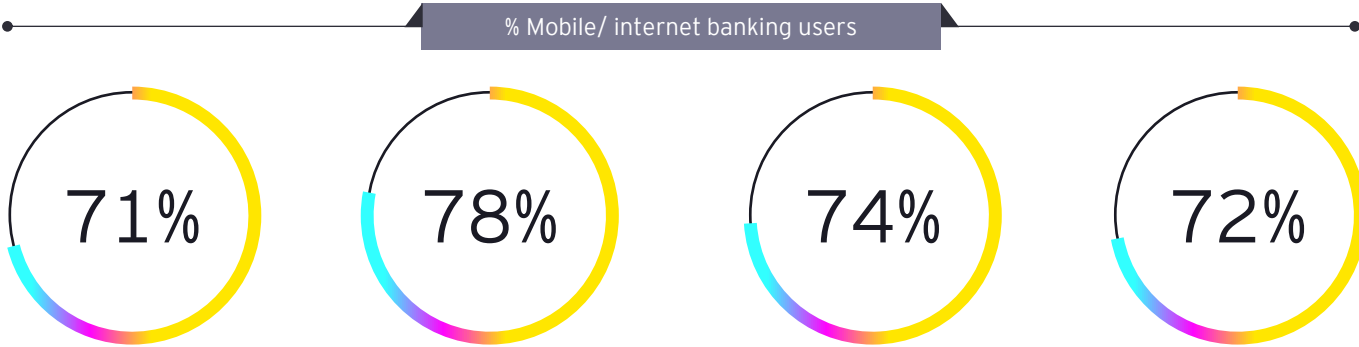


- Steady employment and income levels have a direct impact on adoption of financial services
- Key reasons for not having accounts include insufficient funds, lack of awareness, limited access, and time constraints



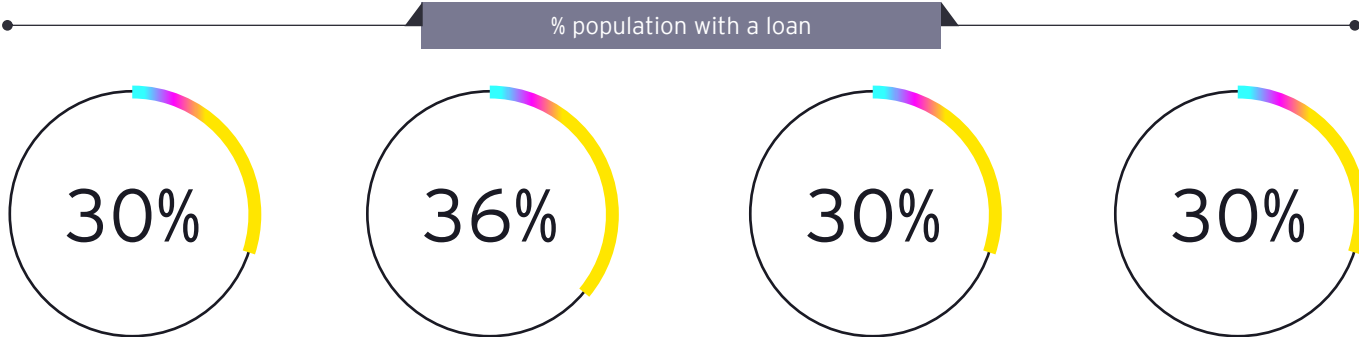
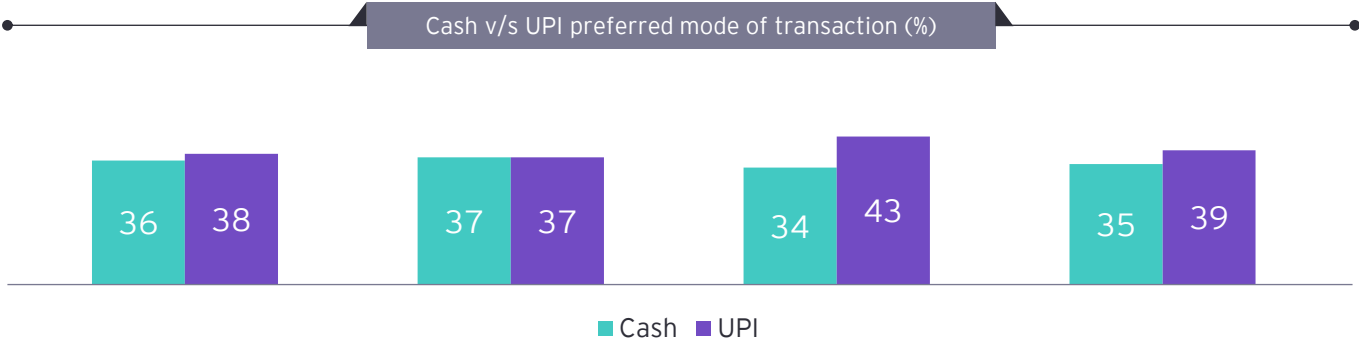


Despite increased adoption to smartphones and MB/IB, 86% of account holders still prefer visiting branches



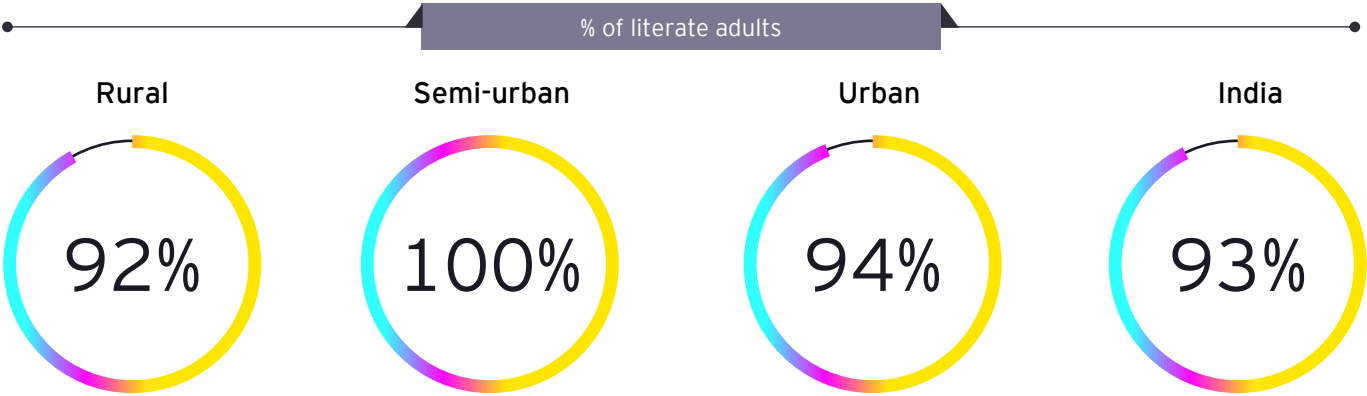
While 69% of women use digital banking, only 44% transact regularly, highlighting the need for improved digital literacy and access for women

- UPI is the most preferred transaction mode.
- 19% respondents preferred cash only
- 11% did not prefer UPI as a mode of payment
- Respondents aged between 18 and 35 had a higher preference for UPI



Credit behavior is restrictive due to lack of knowledge, documentation, and collateral, highlighting gaps in financial literacy and access to formal credit

Among those who do secure loans, 60% rely on formal banking channels



Among women, literacy levels are lower at 89%, highlighting the need for targeted education initiatives in rural regions and among women to bridge these gaps

Awareness of govt schemes (rank ordered)

1. PMJDY	1. PMJDY	1. PMJDY	1. PMJDY
2. APY	2. APY	2. Sukanya Samriddhi Yojana	2. APY
3. Sukanya Samriddhi Yojana	3. PMMY	3. APY	3. Sukanya Samriddhi Yojana
4. PMSBY	4. Sukanya Samriddhi Yojana	4. PMMY	4. PMSBY
5. PMMY	5. PMSBY	5. PMSBY	5. PMMY

Semi-urban regions show the highest awareness across most financial inclusion schemes, particularly PMJDY ranks first (84%) and APY ranks second (74%), indicating stronger outreach and penetration

Awareness among women is the lowest, with 18% unaware of any financial inclusion schemes

96% of respondents demonstrate a strong inclination to save and invest, creating opportunities for financial institutions to offer tailored investment products. Additionally, 55% express interest in learning about financial management, including savings, budgeting, insurance and loans, emphasizing the need for targeted financial literacy programs

Higher literacy enables individuals to understand and effectively utilize financial products, while widespread smartphone adoption facilitates access to digital banking platforms like Mobile Banking Apps and UPI. The popularity of schemes such as PMJDY highlights successful ecosystem participation, supported by a robust mobile infrastructure. Together, these key performance indicators demonstrate that improving financial literacy and technology enablement significantly drives the increased adoption and utilization of financial services.

To empower rural women financially, it is crucial to provide comprehensive training, practical demonstrations, and ongoing support. Leveraging SHGs can facilitate financial literacy and channel savings into formal financial services.

Sanghamitra Bose

6

Future roadmap of financial inclusion in India

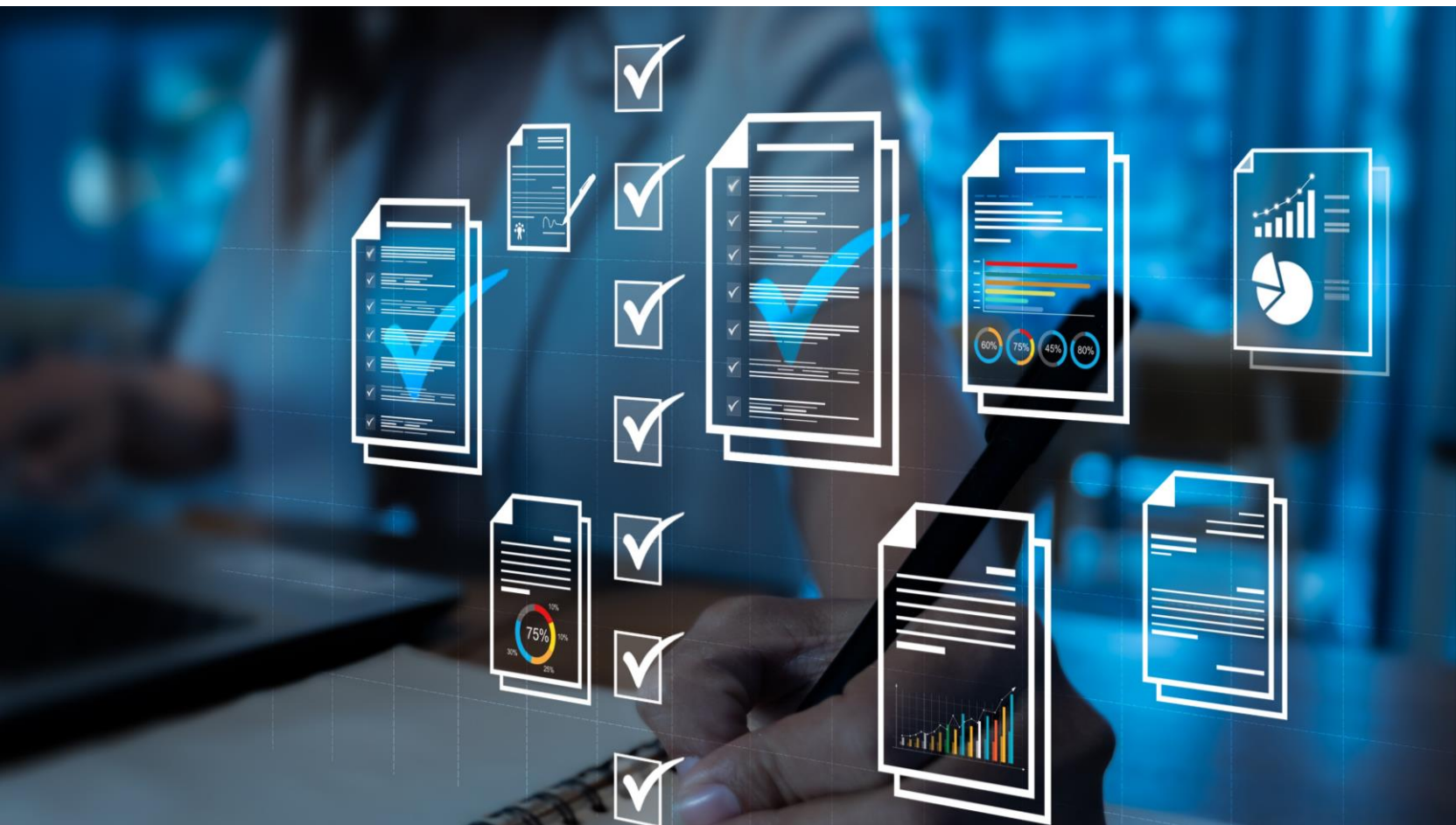
The unbanked, under-banked and fully banked segments of the population are at different levels of financial exclusion. Each of these segments has different challenges and thus requires different enablers and initiatives to empower them. A short-term and long-term strategy needs to be looked at achieving higher financial inclusion.

As part of the short-term recommendation, focus needs to be on understanding the unbanked and under-banked segments and enabling them with technology and financial literacy initiatives. Milestone 1 would focus on the Under-banked segment since they are already introduced to the banking industry. Milestone 2 would cover the unbanked segment.

To accelerate poverty eradication by 2030, microfinance must undergo significant financial innovation. This includes the development of flexible micro-equity products backed by CSR funds. Lenders must strictly adhere to regulations, actively promote financial and digital literacy, and leverage technology to ensure universal access to cost-effective financial services. The financial ecosystem should incentivize impact investors and responsible lenders to launch initiatives that integrate the unbanked and ultra-poor into the formal financial system.



Saneesh Singh
Independent Director
Cashpor Micro credit





6.1 Short-term recommendation: Understanding the unbanked and under-banked segments

		Milestone 1				Milestone 2			
	India (overall)	Under-banked (owning only one financial product - Bank account (for e.g., PMJDY ~40%-50% of adult population)				Unbanked ~20%-25% of adult population			
	Women (overall)	29.56 crore PMJDY accounts (56% of total)				60% of unbanked			
	Delhi	Total 65 lakh PMJDY accounts (90% Urban)							
	Key reasons for financial exclusion	Lack of awareness/ mule accounts	Cost	Insufficient funds	Lack of awareness	Distance	Insufficient funds		
			Lack of trust		Lack of documentation	Lack of trust	Other family member has an account		
Required action	Enable the adults to subscribe to more than one financial product				Enable the adults to open a bank account				
Enablers	Financial literacy areas	Payments	Govt. schemes	Consumer protection/ grievance	Product awareness	Govt. schemes	Consumer protection/ grievance		
		Credit - MFI, Agri, MSME	Insurance		Credit - MFI, Agri, MSME	Insurance	Money transfer/ 123 Pay		
	Tech initiatives	Enabling BCs/ VLEs	Reducing cost for Financial Service Providers (FSPs)	Ease of application	Enabling BCs/ VLEs	Reducing cost for FSPs	Ease of application		
		BYOD - FS employees			BYOD - FS employees				
	Collaborators	FSPs	Business Correspondents (BCs)	FinTechs	NGOs	FSPs	Business Correspondents (BCs)	FinTechs	NGOs
	Other initiatives	Cashback/ Rewards				CSR Funds			
	Implementation challenges	Low internet penetration	Low smartphone penetration	Medium financial literacy		Low internet penetration	Unemployment	Low financial literacy	No time to visit bank
	Impact measures	Active accounts; number of transactions			Product per customer	Avg. balance	Number of accounts		

Review mechanism and governance

Periodic evaluation of financial inclusion policies through monitoring of financial inclusion parameters provides policy makers and stakeholders with necessary insights to understand the achievements made and to address issues and challenges through a coordinated approach. The above impact measures can be monitored in line with the RBI National Strategy of Financial Inclusions on a quarterly and half-yearly basis.

Limited infrastructure in rural areas—fewer bank branches, ATMs, electricity shortages, and low digital device penetration—creates significant barriers to accessing digital services. This restricts access to savings, credit, and insurance, forcing reliance on informal systems. Bridging these gaps through investments in physical and digital infrastructure is essential to foster inclusive growth.



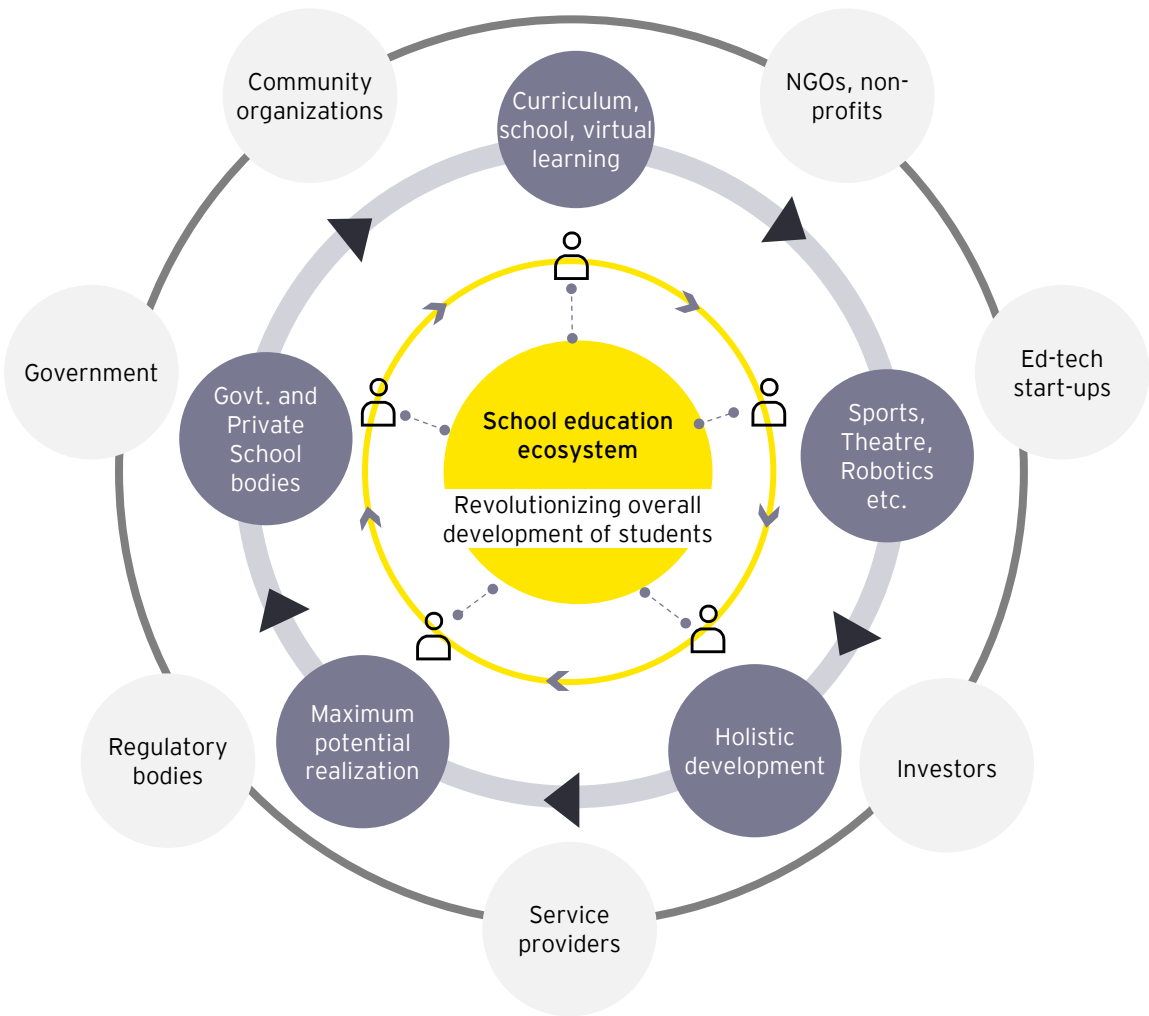
Abhishek Sinha
Co-founder Eko India

6.2 Long-term recommendation - Tech-first approach

Modern day school education ecosystem - analogy

The concept of school originated thousands of years ago as societies recognized the need to develop an overall responsible and empathetic citizen for future generations. The earliest forms of schooling were Gurukuls, where Gurus taught children essential survival skills, cultural values and practical knowledge. The reach of these Gurukuls was limited to only the privileged. As times passed and government interventions were made, education became more accessible and knowledge centric.

However, modern schools operate under an **ecosystem beyond just knowledge and skills** across education, sports, theater, social impact, financial literacy, yoga, startups, SDGs and other development activities under one umbrella for the overall growth and employability of the students. The augmentation of technology, ed-tech start-ups and new education policy (NEP), education in India has become very evolved to raise **humans with full potential**.



The schools have a governance mechanism for policy implementation by defining KPIs for success and re-visiting the traditional report card structure to reflect these KPIs at the basic unit level, i.e., the student and then aggregated at the level of the schools. The modern-day report cards do reflect much more than subject marks like SEAs (Subject Enrichment Activities), MAs (Multiple Assessments), project-based evaluation, art integration and overall mental and behavioral development of the students, etc.

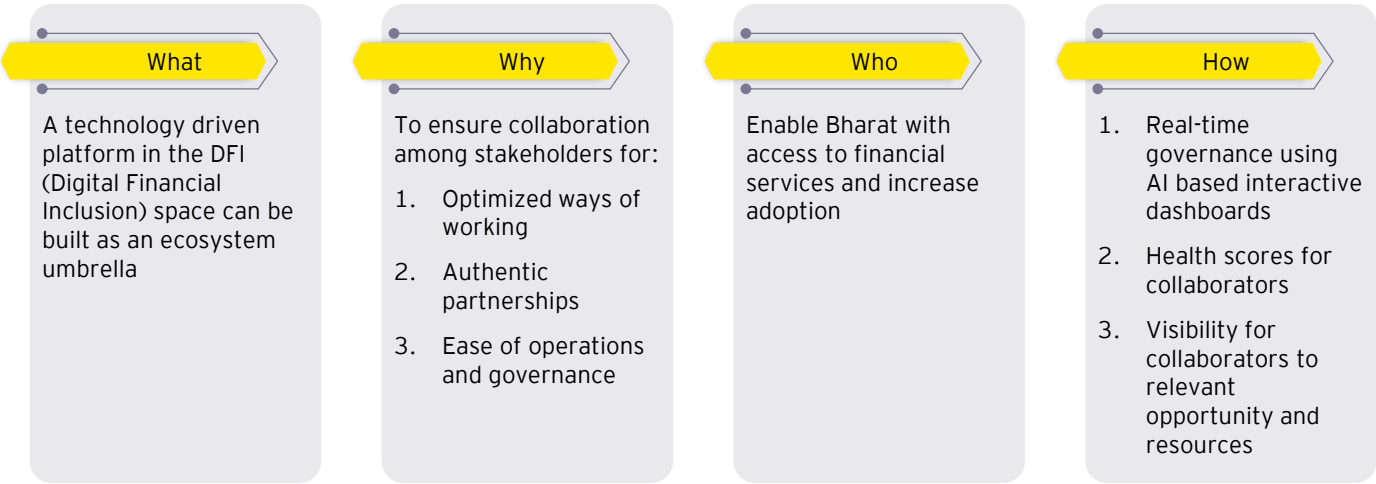
The latest addition to the education ecosystem is the APAAR Id. Based on “One Nation, One Student Id”, APAAR Id is the gateway to a seamless, digital academic journey. It helps in a seamless integration of skills and experience into a credit-based system.

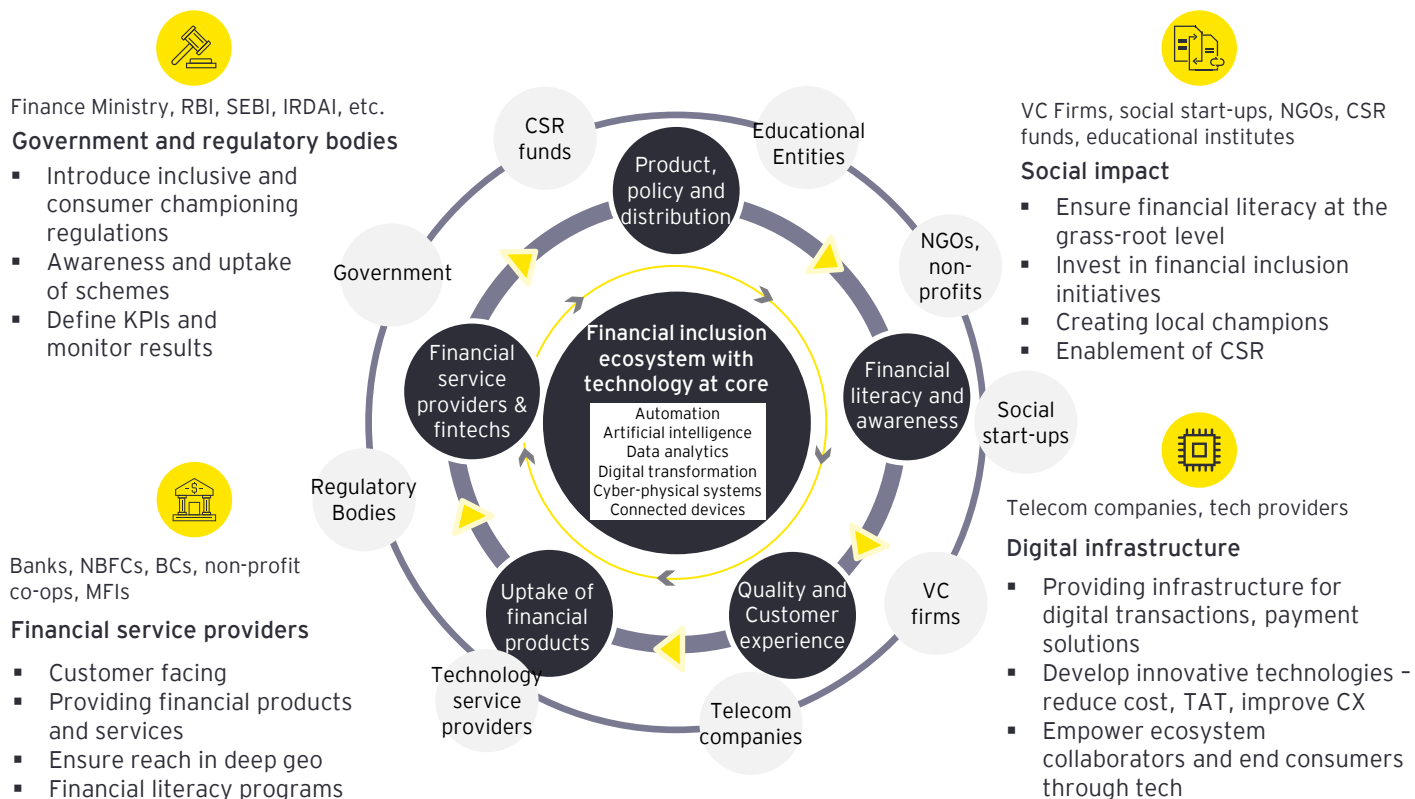
APAAR ID - a unique 12-digit code, will help the students to digitally store, manage and access all their academic credits, including Score card, marksheets, grade sheet, degrees, diplomas, certificates and co-curricular accomplishments. This ID functions as a permanent digital identity for the student in the education ecosystem. Thus, APAAR empowers students to accumulate and store their academic accomplishments, facilitating seamless transitions between institutions for the pursuit of further education.

The financial inclusion ecosystem

The successful evolution of school education can largely be attributed to the entire ecosystem which is built around various collaborators. This can act as an inspiration to drive the next wave of India’s growth story in financial inclusion.

Hence, it is imperative to build a robust financial ecosystem, with technology at its core, which not only caters to the basic banking requirements of the customers but also covers the entire value chain of financial inclusion across financial literacy, account opening, handholding, usage of financial services and monitoring. With a set of solid foundations already laid down, the country can now leverage the ecosystem advantage to scale and make it **self-sustainable**.





The proposed financial inclusion ecosystem would help solve key challenges, wherein the roles and responsibilities of each collaborator would be defined and outcomes measured. Gamification across the collaborators can be introduced and they can be incentivized based on their services and measurable impact. For a transparent collaboration, entry and exit criteria for the collaborators need to be defined and implemented. Once the potential of the ecosystem is fully realized, it would run on autopilot and reap benefits for all collaborators.

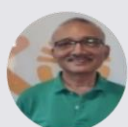
With tech at the core: 100% adoption of good quality financial services

While a robust ecosystem would help achieve financial inclusion, it is imperative to evaluate the current state and the future course of action to achieve 100% adoption of financial services.

The Financial Inclusion (FI) Index is currently measured by a variety of approaches, including the Sarma and PCA methods. Technology can help define and consistently evolve the KPIs and measure the FI Index in real time.


































The ecosystem umbrella will have many use cases where solutions will have to be built with a hyper automation mindset where India Stack will provide ease of interconnectivity and operability. Solutions can be independent while at the same time collaborate with each other, thus reducing many leakages at different touch points in the value chain, creating a flywheel effect, potentially leading to 100% financial inclusion.


India Stack's e-KYC and digital signatures, coupled with the power of blockchain, are revolutionizing the financial landscape. These technologies, along with open-source platforms, AI-driven credit scoring, POSP insurance models, mobile wallets, and micro-saving tools, are driving financial inclusion by reducing costs, increasing accessibility, and improving the overall user experience.



Abhishek Sinha
Co-founder Eko India

6.3 Financial inclusion scorecard

Key focus area	Collaborators	Measurable outcome	Current state	Rationale	Five-years post launch
Infrastructure in rural and remote areas		# of Digital (Mobile) branches/ touchpoints	Current digital branch Infrastructure is at a nascent stage 	Scope to digitally enable BCs and VLEs to increase access and usage; bringing the Bank to the rural customer	
Usage of financial services	  	<ul style="list-style-type: none"> Deposits - AQB Credit Uptake (MFI/ MSME/ Agri) Product per customer 	<ul style="list-style-type: none"> Women deposits: ~21%  PMJDY AQB: ~INR 4,300 MSME credit gap - INR20-25 lakh crore PPC avg. ~2.2 	<ul style="list-style-type: none"> Scope to improve access to women and credit access to MSMEs Global PPC average is 6.3 	
Internet usage		% of Adult population using internet	<ul style="list-style-type: none"> 37% - Rural  62% - Urban 	<ul style="list-style-type: none"> Rural Goa, Kerala and Sikkim at ~70% 1.2 billion smartphone users by 2030 driving financial growth 	
Digital literacy	  	% Adoption of digital banking channels	43% financial literacy 	Denmark, Sweden, Norway stand at 71%	
Cybersecurity and Fraud prevention	  	<ul style="list-style-type: none"> Incidents of financial cyber frauds/crimes Early warning signs 	<ul style="list-style-type: none"> Money lost in cyber frauds - INR177 crore  Helplines and reporting channels available 	<ul style="list-style-type: none"> High monetary loss due to limited digital financial literacy Limited awareness and usage of reporting helpline 	
Regulatory policy and monitoring	  	<ul style="list-style-type: none"> # of policies for FI # Beneficiaries 	<ul style="list-style-type: none"> 10+ schemes for access, insurance, pension, credit  54 crore PMJDY accounts, 35 crore PMMY beneficiaries 	<ul style="list-style-type: none"> Opportunity to ease processes Drive uptake and awareness of Government schemes 	
CSR funding	 	CSR funding towards financial inclusion	Difficult to find the right NGO partners for financial inclusion 	Only ~11% of overall CSR funds currently used for FI, women empowerment related initiatives	
Start-ups		# Start-ups/ Non-profits with social impact	<ul style="list-style-type: none"> Few start-ups for digital payment, micro-lending, etc.  Dedicated VC funds for social impact focused ideas 	Focus on social impact - Currently very few FinTech start-ups (VC backed)	

 Needs improvement

 Satisfactory

 Good

The design and development of the platform which brings all the collaborators together would be followed by screening and onboarding of collaborators. It is imperative to keep a close eye on the execution of the long-term recommendation and continue working on the short-term recommendation of bridging the gap between the unbanked, under-banked and full banked. All these efforts would set us on course to 100% adoption of good quality financial services.

Looking further ahead, creating a tech-driven financial ecosystem is key for lasting inclusion. This ecosystem should leverage AI and advanced automation to provide personalized, accessible and secure financial services. By clearly outlining each participant's role in this system and motivating their involvement through gamification and measurable goals, we can build a model that sustains itself. We as a country need to aim at 100% access to quality financial services to all by 2030. The next milestone being to ensure a behavioral shift towards adoption of insurance and investment products.

Bridging the urban and rural disparity of 71.2% in per capita consumption and pushing financial inclusion efforts can boost financial health and stability. These efforts will set us firmly on the path toward achieving a **Viksit Bharat** – India's goal to become a developed economy by 2047.

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