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Financial Inclusion - The Next Phase

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**Mr. Deepak Kumar
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India's financial inclusion journey has witnessed a remarkable progress over the years. The Financial Inclusion Index has reached 70.0 in March 2026, reflecting sustained improvements in access to and usage of formal financial services. Under Pradhan Mantri Jan Dhan Yojana, the total number of beneficiaries increased to 58.77 crore, as of July 15, 2026. The contributions in Systematic Investment Plan (SIP) reached Rs. 31,781 crore in June 2026, indicating growing participation in formal investment avenues. The country has seen increasing use of formal financial system and widespread adoption of digital payments. This transformation marks a fundamental reordering of how citizens engage with financial institutions. While significant progress has been made in expanding banking access through digital technologies, mobile payments and supportive policy initiatives, the next phase of financial inclusion extends beyond merely opening bank accounts. It emphasizes meaningful usage of financial services, digital and financial literacy, equitable access to credit, insurance, savings and investment opportunities, and the inclusion of underserved populations such as women, rural communities, informal workers and small enterprises. Recognizing these evolving priorities, the National Strategy for Financial Inclusion 2025-30 emphasizes strengthening Financial Safety and Financial Security for households and micro enterprises; adopting a gender-sensitive approach and differentiated strategies for improving financial resilience and strengthening the quality of grievance redressal measures. Together, these priorities signal a transition from achieving universal financial access to building a more inclusive, resilient and customer-centric financial ecosystem.

This emerging transformation in financial inclusion landscape has made it necessary to study and explore this topic further. In this regard, this Issue of Bank Quest is being published on the theme, "Financial Inclusion - The Next Phase".

Digital financial inclusion has significantly improved access to financial services and enabled last-mile delivery, particularly for rural and remote areas. While access to financial services is the first step, continued and meaningful usage depends on users' trust and confidence in the safety, reliability and transparency of the financial system. The importance of Trust factor has increased with the increase in cyber frauds. In this regard, the paper titled "The Trust Deficit: Cyber security as the Cornerstone of Digital Financial Inclusion's Next Phase" jointly written by Mr. Rakesh Singh, Mr. Manish Kumar, Mr. Shashi Bhushan Yadav, Mr. Sagar Soni, Mr. Rishu Singh and Ms. Priti Neha Bara, have discussed on the importance of Trust in digital financial inclusion. The paper has proposed a cyber-inclusive framework and emphasized on the need of strengthening cyber security frameworks, enhancing fraud detection and real-time monitoring systems, enforcing robust customer protection measures, ensuring prompt grievance redressal and promoting cyber awareness and digital literacy, to build and maintain trust.

Sustained adoption of digital financial services depends on a combination of factors, including digital and financial literacy, capability building, robust digital infrastructure, the availability of secure and user-friendly financial products and user trust. People with similar access to bank accounts, mobile phones and internet connectivity still vary significantly in the extent to which they use and benefit

from digital financial services. The paper titled "Beyond Financial Access: The InclusiveTech Capital Framework for Digital Financial Inclusion in India", authored by Mr. John Joseph V V, has proposed a holistic framework to build a strong and sustained digital financial inclusion. The paper discussed upon the role of digital access capital, digital capability capital, digital trust capital and digital participation capital in building meaningful digital financial inclusion.

Giving the overview of Financial Inclusion for the South Asia, the paper titled "Gaps in Financial Inclusion in South Asia: An Analysis" authored by Dr. Tanushree Mazumdar, has demonstrated the world-wide view of financial inclusion. The author has discussed the access and usage gap in various countries of South Asia, is a good addition to the literature on financial inclusion.

The importance of financial literacy and digital literacy for country's overall economic development, is highlighted in the paper titled "वित्तीय साक्षरता और डिजिटल जागरूकता: सशक्त नागरिक, सशक्त भारत" by Ms. Naushaba Hasan. The paper discusses that financial inclusion has emerged as a cornerstone of sustainable economic development by ensuring that individuals and businesses have access to affordable, accessible and appropriate financial products and services.

In addition to above, this Issue also consist of a Book Review by Mr. Bimalkumar S. Gadhwala, on the book "Foreign Exchange Concepts and Arithmetic Explained: Fundamentals of Forex Made Easy to Understand".

We hope that readers will appreciate its depth and comprehensive coverage.

We also encourage the bankers and academicians to contribute the papers in Bank Quest.

Deepak Kumar Lalla

THE TRUST DEFICIT: CYBER SECURITY AS THE CORNERSTONE OF DIGITAL FINANCIAL INCLUSION'S NEXT PHASE

 Rakesh Singh*

 Manish Kumar**

 Shashi Bhushan Yadav***

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 Rishu Singh*****

 Priti Neha Bara*****

Abstract

India's financial inclusion journey has achieved remarkable milestones - 58.70 crore Jan Dhan beneficiaries, a Financial Inclusion Index (FI-Index) of 70 and global leadership in real-time digital payments. Yet this expansion carries an underappreciated challenge, the rapid growth of digital financial services has also been accompanied by a significant increase in financial cyber fraud, highlighting the growing importance of cyber security within the digital financial ecosystem. This study argues that cyber security is no longer merely a technological concern for banks but a foundational trust infrastructure upon which Digital Financial Inclusion must be built. Unless digitally included population can transact with confidence and safety, the gains of the past decade may be undermined by a trust deficit that weakens sustained adoption of digital financial services. Drawing on data from regulatory reports and previous literature, this study examines the evolving financial cyber fraud landscape, assesses the regulatory response and proposes an integrated Cyber-Inclusive Finance Framework for strengthening trust, resilience and the long-term sustainability of India's digital financial inclusion agenda.

Keywords

Cyber security, Digital financial inclusion, Trust deficit, Newly included digital payment users

Introduction

The decade-long journey of financial inclusion in India is one of the most remarkable achievements of the twenty-first century. The Pradhan Mantri Jan Dhan Yojana (PMJDY) had enrolled 58.70 crore citizens in the formal banking system as on July 8, 2026¹, while the Unified Payments Interface (UPI) contributing to - with transaction of value 22,716.07 million and value of 28,92,138.67 crore, as of June 2026². The Financial Inclusion Index (FI-Index) for India increased to 70.0 in March 2026 from 67.0 in March 2025³, bringing the

country to the ranks of the fastest-improving nations in formal banking penetration (ORF, 2026).

Yet there is a paradox in this success which needs to be addressed immediately. The same infrastructure - Aadhaar-linked bank accounts, UPI-enabled smartphones and the Business Correspondent (BC) network - that has brought financial services to the previously unbanked population, has simultaneously opened an unparalleled attack surface for cybercriminals. In 2024, India recorded 22.68 lakh cybercrime incidents on the National Cyber Crime

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Disclaimer: The views expressed in this article are those of the author(s) and do not represent the official positions of any institution with which the author(s) may be affiliated.

¹PMJDY Progress Report, <https://pmjdy.gov.in/account>

²<https://www.npci.org.in/product/upi/product-statistics>

³Financial Inclusion Index for March 2026, RBI, https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=63164

Reporting Portal (NCRP) - up from 10.29 lakh in 2022. In 2025, the country recorded around 25 lakh cases of cyber crime. 70% of the reported cases were related to financial frauds, such as phishing, theft of One-Time Password (OTP), fake investment schemes and others. India's cybercrime landscape has grown by up to 400% since 2021, with the rural and semi-urban regions, where financial inclusion is expanding, becoming the new hotspot of digital fraud (ORF, 2026).

Due to cyber fraud, financial losses in 2024 stood at ₹22,845.73 crore - a near-threefold rise from ₹7,465.18 crore in 2023⁴. In 2024, 60% of the fraud victims were individuals making their first digital payment (India Data Map, 2025). Low-income, newly included digital payment users are at higher risk of exploitation as they are unfamiliar with digital hygiene, have limited recourse options and when defrauded, may become reluctant to continue using formal digital financial services - negating years of financial inclusion efforts. The cyber fraud-induced trust deficit is the biggest risk to the sustainability of India's financial inclusion journey, especially digital financial inclusion.

This study examines the intersection of cyber security and digital financial inclusion, analyses the emerging financial cyber fraud landscape, study the evolving regulatory architecture under National Strategy for Financial Inclusion (NSFI) 2025–30 and the recent developments by regulator and proposes a Cyber-Inclusive Finance Framework to strengthen trust and resilience within India's digital financial ecosystem. Further, the paper presents the review of literature and identifies the research gap; methodology; Discussion; explore the fraud landscape, regulatory architecture, trust paradox and proposed framework and lastly, conclusion, implications and future scope.

Literature Review

International literature recognises digital finance

as a key enabler of financial inclusion by reducing transaction costs, expanding access to formal financial services and improving financial participation among underserved populations. Ozili (2018) argues that while digital finance has significantly strengthened financial inclusion, its long-term sustainability depends on maintaining users' confidence, trust and security within the digital financial ecosystem. These findings provide an important conceptual foundation for examining cyber security as an essential component of sustainable digital financial inclusion.

Recent evidence from the World Bank further highlights that while digital financial services have significantly expanded financial inclusion globally, their long-term benefits depend upon consumers' ability to use digital financial products safely, supported by appropriate consumer protection, digital financial literacy and trust-building mechanisms (Klapper, 2024).

With India's digital payment system growing at a rapid pace, the digital financial inclusion-cyber security nexus has gained increasing policy and academic focus. The RBI's Report on Currency and Finance 2023-24 noted that the growth of Digital Public Infrastructure (DPI) opens up new avenues for fraud vulnerabilities that need coordinated regulatory action (RBI, 2024). NABARD's All India Rural Financial Inclusion Survey (NAFIS) 2021-22, which surveyed one lakh rural households in 710 districts across 28 States and Union Territories of Jammu & Kashmir and Ladakh. Revealed that financial literacy of the rural households had increased from 33.9% to 51.3% between 2016-17 and 2021-22, but there was no equivalent measure of cyber-literacy (NABARD, 2024). The trend towards digital financial fraud and its disproportionate effect on newly banked population is consistently captured in the country. Bharti and

⁴Ministry of Home Affairs, (2025a). Lok Sabha Unstarred Question No. 432, 2 December 2025. <https://www.mha.gov.in/MHA1/Par2017/pdfs/par2025-pdfs/LS02122025/432.pdf>

Sharma (2026) specifically analyzed the vulnerability of UPI fraud in the state of Himachal Pradesh and concluded that lower educated and rural users are more vulnerable to UPI fraud. The Central Payment Fraud Information Registry (CPFIR) of the RBI, which was launched in March 2020, is the main institutional repository for monitoring the trend of payment fraud (Ministry of Finance, 2024). Although the scale of the problem is known from the existing institutional data, there is no integrated framework in the existing literature that connects the cyber security architecture with the outcomes of digital financial inclusion policy – which this study proposes with the Cyber-Inclusive Finance framework.

The OECD (2015) similarly emphasises that digital security should be viewed not merely as an technological issue, but as an economic and social enabler that supports confidence in the digital economy. This perspective reinforces the argument that cyber security should be integrated into digital financial inclusion policies rather than treated solely as a technical compliance requirement. Building upon these insights, the present study proposes a Cyber-Inclusive Finance framework that positions cyber security as the trust infrastructure underpinning sustainable digital financial inclusion.

Objectives

This study examines the intersection of cyber security and digital financial inclusion, analyses the emerging financial cyber fraud landscape, study the evolving regulatory architecture under NSFI 2025–30 and the recent developments by regulator and proposes a Cyber-Inclusive Finance framework to strengthen trust and resilience within India's digital financial ecosystem.

Methodology

This study adopts a descriptive method using secondary data obtained from various Government and regulatory data sources. The data collected from various reports released by Government, RBI and other research institutions. The previous literature were referred to prepare the conceptual framework. This study is proposing Cyber-Inclusive Finance framework, providing novel contribution.

Discussion

The Cyber Fraud Landscape: Scale, Patterns and Vulnerable Population

Trends in Financial Cyber Frauds

Cyber fraud in India has gone beyond being a law enforcement issue to a systemic financial stability concern. As per Ministry of Home Affairs (MHA) response to Parliament, financial losses due to cyber fraud rose sharply from ₹2,290.24 crore in 2022 to ₹7,465.18 crore in 2023 and ₹22,845.73 crore in 2024. In 2024 alone, NCRP received 22.68 lakh complaints of cybercrime. UPI fraud incidents rose from 4.07 lakh (₹242 crore) in 2021-22 to 13.42 lakh (₹1,087 crore) in 2023-24 and in FY 2024-25 stood at ₹981 crore involving 12.64 lakh incidents. As total digital payment transactions reached to 22,716.07 million (by volume) in June 2026, and 86% of households are now connected to internet, the attack surface has continued to expand. Financial cyber fraud complaints increased from 2,62,846 in 2021 to 24,02,579 in 2025, while reported financial losses increased from ₹551 crore to ₹22,495 crore during the same period. The steep rise in complaints and losses reflects the expanding cyber threat accompanying India's rapid digitalisation and underscores the need to integrate cyber security into digital financial inclusion policies.

Table 1: Financial Cyber Fraud Complaints and Reported Losses in India

Year	Financial Cyber Fraud Complaints	Reported Losses (₹ crore)
2021	2,62,846	551
2022	6,94,446	2,290
2023	13,10,357	7,465
2024	19,18,835	22,848
2025	24,02,579	22,495

Source: Ministry of Home Affairs Parliamentary Replies (Lok Sabha Unstarred Question No. 432, 2025; Rajya Sabha Unstarred Question No. 1349, 2026) and Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS) data.

As digital finance has grown, so has the modus operandi of fraud. The most common fraud types include phishing and vishing attacks, impersonating bank officials or Government agencies to extract OTPs; UPI manipulation where fraudsters guide victims into entering their UPI PIN as if receiving a payment; investment scams through messaging platforms; ‘digital arrest’ scams where fraudsters impersonate enforcement agencies; and fake Know Your Customer (KYC) calls. A large proportion of cyber frauds are carried out by organised groups of criminals from outside the country (MHA, 2026a). This threat is transnational also and requires international and local law enforcement action.

Who is Most Vulnerable?

In a study of the vulnerability of UPI in Shimla district, Himachal Pradesh, Bharti and Sharma (2026) found that lower educated, lower income and rural users were the most vulnerable, and the most prevalent frauds are phishing, social engineering and fake QR code scams. Overconfident and underconfident digital users are exposed to higher risk: the former believing that they are less likely to be exposed to threats and the latter having less knowledge of how to recognize fraud patterns.

This picture is confirmed by national-level data. 60% of individuals become cyber frauds victims, while making first digital payment (India Data Map, 2025). In 2023, only 20% of Indians had received training in cyber safety (Indian Cyber Crime Coordination Centre [I4C] and India Data Map, 2025). Low-cost smartphones and cheap data plans have increased digital access in rural and semi-urban areas, without digital literacy to support it. Tier 2 and Tier 3 cities have seen an increase in cybercrime activity because of the lack of awareness and strong cyber defence systems (ORF, 2026). The instances of organised vishing fraud is an example of how digital inclusion can be turned into digital exploitation at scale without digital safety.

The repercussions are not just financial. Once defrauded, many individuals, especially, newly included digital payment users may discontinue using digital financial services. Above this, under-reporting of incidents is another challenge. Data from the Ministry of Home Affairs mentioned that 28 lakh cases were reported in 2025 and only 55,484 First Information Reports (FIRs) were filed. This enforcement deficit also undermines trust and formal financial inclusion of the most vulnerable groups. As complaints reported on the portal and registered FIRs represent different stages of the criminal justice process, the effectiveness of cybercrime response ultimately depends upon timely investigation and prosecution by the concerned Law Enforcement Agencies. Any gap between complaint reporting and enforcement outcomes may contribute to an enforcement deficit, which can adversely affect public trust in formal digital financial institutions.

The Regulatory Architecture: Strengthening the Shield

RBI Authentication Directions, 2025

In view of the growing fraud risks, on 25 September 2025, the RBI issued the Authentication Mechanisms

for Digital Payment Transactions Directions, 2025, applicable to all payment system providers - banks and non-banks - from 1 April 2026. The Directions require at least two-factor authentication for all domestic digital transactions, with the provisions that at least one factor must be dynamic - credentials such as OTPs, biometric data or hardware tokens must be unique to each transaction. This directly addresses the most frequent fraud vector: SMS-based OTP interception through SIM-swap and social engineering.

The Directions also introduce a risk-based authentication model: low-risk, low-value transactions from familiar devices may be verified less rigorously, while high-value, unusual or geographically anomalous transactions require enhanced authentication. This calibrated approach balances security with the user-experience imperative critical for newly included digital payment users - excessive authentication friction risks driving newly included population back to cash-based transactions.

While the Directions represent a significant regulatory step, implementation challenges exist in the digital financial inclusion context. Dynamic authentication requirements may present practical barriers in rural areas with limited internet connectivity. Supplementary guidelines addressing these gaps - particularly for BC-mediated and offline transactions - will be essential to ensure that rural inclusion contexts are not inadvertently disadvantaged. The RBI has also made provisions on consumer compensation mechanism under which eligible fraud victims would receive up to ₹25,000 or 85% of the fraud amount, whichever is lower, subject to conditions: (i) the transaction must be a domestic digital payment; (ii) the victim must not have been negligent in sharing credentials or authentication details; and (iii) the complaint must be lodged within the prescribed timeframe through official channels. This shared

liability mechanism is designed to simultaneously provide relief to vulnerable users and enable banks and payment operators to invest in stronger fraud detection.

Digital Payments Intelligence Platform and I4C

The NSFI 2025-30 emphasises the need for banks to implement the Digital Payments Intelligence Platform (DPIP) for detecting and preventing payment frauds, the effective utilisation of the Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS) to report and handle complaints of cyber fraud and use of pre-intimated official phone numbers by banks to counter vishing attacks. The I4C's Suspect Registry has declined transactions worth ₹8,031.56 crore. CFCFRMS has separately saved more than ₹8,189 crore across 23.61 lakh complaints till 31 December 2025, demonstrating that coordinated real-time intervention can materially limit losses.

RBI Cyber security Framework for Banks

The RBI's Cyber security framework for Scheduled Commercial Banks mandates board-approved cyber security policies, 24/7 Security Operations Centres (SOCs) for threat monitoring and incident response, dataleak prevention, regular vulnerability assessments and formal incident reporting. The Master Direction on Information Technology framework imposes tiered obligations for Non-Banking Financial Companies (NBFCs) based on asset size.

Rising internet penetration, smartphone adoption and the rapid expansion of digital services, has increased the attack surface for cyber threats. This digital adoption making cyber security investment a mandatory, rather than an option.

The Trust Paradox: When Inclusion breeds Exclusion

The central argument of this study is that cyber security is not a technical add-on to digital financial

inclusion, but it is a foundation to build trusted infrastructure. The trust paradox can be simply stated: digital financial inclusion expands access but also expands vulnerability. When the vulnerability is not managed, it erodes the trust that access is meant to build.

The fraud not only resulted into direct financial loss but in many cases deterred victims from ever using digital banking again. Each such incident is a reversal of inclusion - a newly banked person exiting the formal financial system because their experience of it was one of victimisation.

The NSFI 2025-30 explicitly acknowledges this, noting that the number of cybercrime reports rose by 24.4% between 2021-22 (NCRB, 2023), reflecting rising digital frauds. The complex procedures and negative experiences deter first-time users from engaging with digital finance. The strategy's fifth Panch-Jyoti goal - Customer Protection and Resilience - explicitly targets this through enhanced grievance redressal systems, DPIP deployment and regular awareness campaigns. But policy architecture alone cannot build trust. Trust is built through lived experience - millions of safe digital transactions, quick resolution when fraud occurs and knowledge of how to protect oneself.

That is why digital literacy and cyber hygiene - not authentication frameworks alone - are the ultimate measure of inclusion sustainability. NAFIS 2021-22 shows financial literacy improved from 33.9% to 51.3% between 2016-17 and 2021-22 (NABARD, 2024), yet nearly half of rural households still lack adequate financial literacy - and no equivalent cyber literacy metric is tracked. Thus, there is a need to fill this gap between digital adoption and digital financial literacy.

Towards a Cyber-Inclusive Finance Framework: Recommendations

To resolve this trust paradox, an integrated approach is needed that treats cyber security and digital

financial inclusion not as separate agendas but as a single programme. In this regard, the authors has proposed a Cyber-Inclusive Finance framework. The framework brings together the regulatory framework, the identified gap between inclusion and cyber safety and the field-level realities in six mutually reinforcing action components. The six components are: (i) Cyber Literacy Integration; (ii) Gender-Differentiated Cyber Safety; (iii) Accessible Fraud Reporting; (iv) Contextually Calibrated Authentication; (v) Public-Private Coordination; and (vi) Implementation. They are described below.

Embed Cyber Literacy in all Financial Literacy Programmes

The institutional structure for this integration is the NSFI 2025-30's National Centre for Financial Inclusion and the five-Cs of the National Financial Education Strategy (Content, Capacity, Community, Communication, Collaboration). All financial literacy modules should include a mandatory cyber hygiene component: identification of OTP scams, verification of caller identity, safe use of UPI and reporting of cyber fraud. The RBI's awareness campaign with Common Service Centre (CSC) e-Governance services, piloted in 2026, represents exactly this integration model and should be scaled nationally (RBI, 2026a).

Gender-Differentiated Cyber Safety Interventions

Women constitute 55.70% of PMJDY account holders, as on January 15, 2026; however, they remain disproportionately underrepresented among active digital financial service users and low access of knowledge about fraud detection, making them more vulnerable to cyber fraud. Cyber safety campaigns co-designed with and delivered through Self-Help Group (SHG) networks - already trusted institutions for financial literacy - can serve as an effective channel for reaching rural women with actionable cyber hygiene knowledge. BC women agents with direct community connections to newly banked customers should be trained as 'Cyber Sakhi' first responders,

providing immediate guidance when a fraud attempt is reported.

Simplify Fraud Reporting for low-literacy users

The complexity of progressing from complaint reporting to formal investigation may discourage newly included digital payment users from pursuing grievance redressal. The CFCFRMS (1930) should be made available in all 22 scheduled languages with voice-based reporting options for users with low literacy. Banks should designate a dedicated BC contact for each service area as the first point of contact for customers unable to navigate app-based fraud reporting.

Risk-Based, Contextually Calibrated Authentication

While the RBI's Authentication Directions, 2025 is a welcome step, implementation must be tailored to the rural, low-digital-literacy context. Biometric Aadhaar Enabled Payment System (AePS) - already deployed at BC points across rural India - provides fraud-resistant, low-friction authentication without requiring smartphone literacy. AePS-based biometric authentication may be considered for high-value transactions at Tier 4-6 centres, reducing dependence on SMS OTPs which are the dominant social engineering target.

Public-Private Coordination: The Cyber-Inclusion Compact

To address cyber fraud at the scale required by India's financial inclusion agenda, a Cyber-Inclusion Compact - a formal coordination mechanism between RBI, Government, NPCI, banks, telecom operators and fintech platforms - is needed. SIM-swap fraud is a telecom-layer problem requiring real-time data sharing between banks and operators. The real-time data integration could become powerful fraud prevention instrument. The regular publications of fraud typology reports disaggregated by geography and user demographics, can enable targeted

interventions in high-fraud districts.

Implementation of Directions

The consumer compensation mechanism—up to ₹25,000 or 85% of the fraud amount, subject to eligibility conditions—should be implemented and operationalised in a timely manner to strengthen consumer confidence and support sustained adoption of digital financial services. For low-income fraud victims, even partial recovery can be the difference between re-engagement with formal finance and withdrawal from formal digital financial services. The framework should be linked to mandatory bank-side fraud reporting timelines, establishing systemic accountability alongside consumer relief.

Conclusion

India's financial inclusion journey has achieved significant milestones, though full digital financial inclusion remains a work in progress. The next step, however, is from access to empowerment and the one condition that must be met is trust. In a digital financial system, trust is created or lost in a single transaction. The sharp rise in financial cyber fraud complaints and reported losses over recent years highlights that the sustainability of digital financial inclusion depends not only on expanding access but also on strengthening cyber security, consumer protection and public trust. Without adequate cyber resilience, the long-term gains of India's digital financial inclusion initiatives may be significantly undermined.

The regulators are cognizant of this challenge, as evidenced by the fifth Panch-Jyoti objective under NSFI 2025-30 and the Authentication Directions, 2025 issued by the RBI. The Digital Payments Intelligence Platform, the I4C's fraud intervention record of blocking ₹8,031 crore in fraudulent transactions and the consumer compensation mechanism are meaningful institutional responses. However, this institutional architecture has to be complemented

by grassroots action: Cyber literacy co-delivered with financial literacy; Cyber Sakhis in the SHG networks; biometric AePS at all BC touch points; and a consumer compensation mechanism that allows for survivability from fraud for the poor.

At the heart of Digital Financial Inclusion, lies the promise that formal digital financial services are not only accessible but also secure, reliable and trustworthy. Building and sustaining that trust will define the success of India's next phase of digital financial inclusion. Ultimately, the success of Digital Financial Inclusion will be reflected in whether every digitally included user — including those in rural and underserved communities — can transact with confidence, knowing that the financial system is secure, responsive and capable of providing effective protection and redress in the event of cyber fraud.

Implications and Future Scope

The findings of this study have practical implications for multiple stakeholders involved in India's digital financial inclusion ecosystem. For regulators, the proposed Cyber-Inclusive Finance framework highlights the importance of integrating cyber literacy, consumer protection and trust-building measures within the implementation of the National Strategy for Financial Inclusion (NSFI) 2025–30. For Public Sector Banks (PSBs) and other financial institutions, the study provides strategic directions for strengthening fraud prevention mechanisms, customer awareness programmes and accessible grievance redressal systems to enhance consumer confidence in digital financial services. For FinTech companies and payment system operators, the framework emphasises the need for user-centric design, context-sensitive authentication and simplified fraud reporting mechanisms that improve both security and user experience. For policymakers, the study offers a policy perspective for integrating cyber security into digital financial inclusion initiatives through

coordinated institutional mechanisms involving financial regulators, law enforcement agencies and technology service providers. Finally, for researchers, the proposed Cyber-Inclusive Finance framework provides a conceptual foundation for future empirical research examining the relationship between cyber security, consumer trust and sustainable digital financial inclusion.

Future studies should focus on empirically validating the proposed Cyber-Inclusive Finance framework across different socio-economic and geographical contexts. Longitudinal studies may be undertaken to examine whether improvements in cyber literacy led to sustained adoption of digital financial services and reduced fraud victimisation over time. Comparative studies across States, aspirational districts and urban–rural regions could identify contextual factors influencing cyber resilience among digitally-included population. Future studies can investigate the effectiveness of artificial intelligence-based fraud detection systems, behavioural interventions aimed at reducing phishing susceptibility and gender-specific cyber awareness programmes in improving digital financial safety. Comparative studies evaluating cyber security practices adopted by banks, fintech platforms and payment service providers would further strengthen policy understanding. Finally, cross-country comparative studies among emerging digital economies could provide valuable insights into global best practices for integrating cyber security with digital financial inclusion and enhancing consumer trust.

References

- Bharti, S. & Sharma, R. (2026). Socio-demographic and behavioral determinants of UPI fraud vulnerability: A descriptive study from Shimla District, Himachal Pradesh. *Journal of Forensic Sciences and Research*, 10. <https://www.forensicscijournal.com/>
- India Data Map. (2025, October 11). *Online fraud in India: 2025 projections and analysis*.

- Klapper, L. (2024). Expanding Financial Inclusion through Digital Financial Services: A Literature Review. World Bank Policy Research Working Paper No. 11008. Washington, DC: World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099415112192435594?utm_source
- Lexology. (2025, October 6). RBI (Authentication Mechanisms for Digital Payments Transactions) Directions 2025: Balancing privacy and security in digital payment. Lexology. <https://www.lexology.com>
- Ministry of Finance, Government of India. (2024). Central Payment Fraud Information Registry (CPFIR): Overview. Department of Financial Services. <https://rbi.org.in>
- Ministry of Finance, Government of India. (2025a). UPI fraud trend data FY 2024-25. Lok Sabha statement by MoS Finance, 15 December 2025. https://sansad.in/getFile/loksabhaquestions/annex/186/AU2481_5blzKk.pdf
- MHA (Ministry of Home Affairs), Government of India. (2025a). Lok Sabha Unstarred Question No. 432, 2 December 2025: Cases of Cybercrime. <https://www.mha.gov.in/MHA1/Par2017/pdfs/par2025-pdfs/LS02122025/432.pdf>
- MHA (Ministry of Home Affairs), Government of India. (2026a). Rajya Sabha Unstarred Question No. 1349, 11 February 2026: Sharp rise in cyber and financial frauds. <https://www.mha.gov.in/MHA1/Par2017/pdfs/par2026-pdfs/RS11022026/1349.pdf>
- National Crime Records Bureau. (2023). Crime in India 2022. Ministry of Home Affairs, Government of India. <https://ncrb.gov.in>
- Ministry of Finance, Government of India. (2025). Lok Sabha Unstarred Question No. 2481: UPI Domestic Payment Frauds During the Last Five Financial Years (Answered on 16 December 2025). Parliament of India. https://sansad.in/getFile/loksabhaquestions/annex/186/AU2481_5blzKk.pdf
- NABARD (National Bank for Agriculture and Rural Development). (2024). All India Rural Financial Inclusion Survey (NAFIS) 2021-22. Department of Economic Analysis & Research, NABARD, Mumbai. <https://www.nabard.org>
- Observer Research Foundation (ORF). (2026, January 20). Digital deception in rural India and the AI counter-offensive. ORF Expert Speak. <https://www.orfonline.org>
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. https://www.sciencedirect.com/science/article/pii/S2214845017301503?utm_source
- OECD. (2015). Digital Security Risk Management for Economic and Social Prosperity: OECD Recommendation and Companion Document. https://www.oecd.org/en/publications/digital-security-risk-management-for-economic-and-social-prosperity_9789264245471-en.html?utm_source
- PIB (Press Information Bureau). (2025a). Pradhan Mantri Jan Dhan Yojana: Progress Report, August 2025. Ministry of Finance, Government of India. <https://www.pib.gov.in>
- PIB (Press Information Bureau). (2025b). Cybercrime statistics and I4C awareness initiatives. Ministry of Home Affairs, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2153524>
- PIB (Press Information Bureau). (2025c). Curbing Cyber Frauds in Digital India - Special Feature, October 2025. Ministry of Information & Broadcasting, Government of India. <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/oct/doc2025108660701.pdf>
- PIB (Press Information Bureau). (2025d). Digital Payment Transactions Surge with Over 18,000 Crore Transactions in 2024-25. Ministry of Finance, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2110405>
- Reserve Bank of India. (2024). Report on Currency and Finance 2023-24: India's Digital Revolution. RBI, Mumbai. <https://www.rbi.org.in>
- Reserve Bank of India. (2025a). Financial Inclusion Index for the year ending March 2025. RBI, July 2025. <https://www.rbi.org.in>
- Reserve Bank of India. (2025b). National Strategy

for Financial Inclusion (NSFI): 2025-2030. RBI, 1 December 2025. <https://www.rbi.org.in>

Reserve Bank of India. (2025c). Reserve Bank of India (Authentication Mechanisms for Digital Payment Transactions) Directions, 2025. RBI, 25 September

2025. <https://www.rbi.org.in>

Reserve Bank of India. (2026a). Digital payments awareness programme with CSC e-Governance Services. RBI. <https://www.rbi.org.in>



BANK QUEST THEMES

The themes for upcoming Issues of “Bank Quest” are identified as:

1. July-September 2026: Enhancing Customer Service through Capacity Building in the Banking Sector

Sub-themes: Employees as drivers of Customer Service Excellence; Customer service; Customer engagement; Customer acquisition and retention in digital era; Customer protection; Complaint management; Grievance redressal; Employee engagement; Training, skill development and technology adoption in employees; Ethics and compliance

2. October-December 2026: Credit Inclusion: Bridging the credit gap

Sub-themes: Role of data and emerging technologies in enabling credit access; Fintech & NBFCs ecosystem in credit delivery; Digital lending; Microfinance; MSME financing; Embedded finance; Financing of emerging sectors

3. January-March 2027: Rural banking, Co-operative Banking and NBFCs in Indian Financial system

Sub-themes: Role and importance of regional rural banks, co-operative banks and NBFCs; Challenges of regional rural banks, co-operative banks and NBFCs; Rural banking; Technology adoption; Business Correspondents & Financial inclusion

4. April-June 2027: Risk management in banks

Sub-themes: Different types of risks in banking sector and their management; Cyber risks; Climate related risks; Operational risks; Unsecured loans; Early-warning signals; Compliance

BEYOND FINANCIAL ACCESS: THE INCLUSIVE TECH CAPITAL FRAMEWORK FOR DIGITAL FINANCIAL INCLUSION IN INDIA

 John Joseph V V*

Abstract

India has made significant strides in financial inclusion by providing public digital infrastructure like Aadhaar, the Unified Payments Interface (UPI) and the Pradhan Mantri Jan Dhan Yojana (PMJDY) to millions of people. Though these initiatives gave access to financial inclusion, access has not brought uniformity to consistent engagement and economic well-being. People with similar access to bank accounts, mobile phones and internet connectivity still vary significantly in the extent to which they use and benefit from digital financial services. This creates a paradox in digital financial inclusion, where the mere availability of access does not necessarily translate into meaningful inclusion. This review critically analyses the literature on the digital financial inclusion, human capital theory, capability approach, technology acceptance theory, social capital theory, digital capital and digital trust to understand the impact of these theories on digital financial inclusion. It identifies a notable gap in the existing literature: the concept of access, capability, trust and participation has been studied separately, but not yet in combination. Thereby providing understanding of how these elements work together to foster and create digital financial inclusion and financial well-being. On this synthesis, the study presents the InclusiveTech Capital (ITC) Framework, which combines four interrelated dimensions: Digital Access Capital, Digital Capability Capital, Digital Trust Capital and Digital Participation Capital to describe digital financial inclusion beyond an access-centric perspective. The framework explains how these dimensions work together to empower individuals to access, engage and gain financial benefits of digital financial services. This study also provides actionable insights for banks, NBFCs, fintech companies and policymakers to redefine meaningful financial inclusion. The review advocates for assessing the success of financial inclusion not only by the number of people who are able to access financial services, but by their ability to use digital financial services confidently and in a meaningful way to enable them to achieve economic well-being.

Keywords

InclusiveTech Capital framework, Digital financial inclusion, Financial capability, Digital trust, Digital participation, Financial well-being

Introduction

Financial inclusion is deemed to be an critical component of economic development because it empowers households and businesses to save, manage risk, access credit and engage in economic

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activity. Digital financial inclusion has become rapid, cheap and widely available, driving it to the forefront of the policy agenda, particularly in developing economies where technology can help overcome geographical and institutional barriers.

India has become a global benchmark for digital financial inclusion with Digital Public Infrastructure (DPI) such as Aadhaar, Pradhan Mantri Jan Dhan Yojana (PMJDY), Unified Payments Interface (UPI), DigiLocker and the Account Aggregator framework having connected millions of previously excluded to the formal financial system.

However, there is one big challenge that remains: while access has increased, engagement with the digital financial ecosystem is not encouraging. Many people with bank accounts, smartphones and internet access are still using cash and are not yet convinced of the benefits of digital financial products, while others actively use digital payments, savings, credit, insurance and investment and benefit significantly financially. This disparity shows that access alone does not guarantee meaningful inclusion or financial well-being. This leads to an important question: why is there a disparity in digital financial participation and well-being among people who have the same access? The focus in financial inclusion policy has traditionally been on access, but there is growing evidence that knowledge about digital financial services, confidence in their use, trust in digital platforms and continued engagement are all important factors in determining whether people benefit.

These dimensions have been analyzed separately in previous studies. The Human Capital Theory focuses on the importance of knowledge and skills; the Capability Approach looks at how people use the resources they have in order to create the outcomes that they value; Technology Acceptance Theory examines the factors that influence the uptake of

digital technology; Social Capital Theory focuses on the role of social connections and trust; and the emerging concept of “digital capital” addresses digital inequalities in terms of digital resources and competencies. Human Capital Theory emphasises the role of knowledge and skills; the Capability Approach examines how people convert available resources into valued outcomes; Technology Acceptance Theory explains what drives adoption of digital technology; Social Capital Theory highlights the role of social connections and trust; and the more recent concept of “digital capital” explains digital inequality through digital resources and competencies. All these dimensions provide useful partial views, yet none brings together these perspectives in a coherent framework of understanding digital financial inclusion. This fragmentation contributes to the constraints of research and policy design to go beyond access.

This review, thus, develops the InclusiveTech Capital (ITC) framework by conducting an integrative literature review, in which meaningful digital financial inclusion is understood as the result of four interconnected dimensions of capital: Digital Access Capital, Digital Capability Capital, Digital Trust Capital and Digital Participation Capital.

Objectives

This study has three objectives: (i) the critical review of the literature on digital financial inclusion and its theoretical foundations: human capital theory, the capability approach, technology acceptance theory, social capital theory, digital capital and digital trust; (ii) to identify the conceptual fragmentation in the above literature, specifically the lack of an integrated account of the relationship between access, capability, trust and participation; (iii) to develop the InclusiveTech Capital framework as a conceptual synthesis that gives direction to future studies and policy.

Literature Review

Evolution of Financial Inclusion

The importance of financial inclusion in the realms of financial resilience, poverty alleviation and inclusive growth has been a key policy concern for Governments, financial institutions and development agencies, with some of the initiatives aimed at leveraging branch networks, digital payments and technology for inclusive financial services delivery.

Early literature viewed financial inclusion as being able to access formal financial services, such as savings, credit, insurance and payment services (Sarma, 2008; Alliance for Financial Inclusion, 2020). The Government policies majorly targeted on decreasing physical, geographical and economic barriers to access. The World Bank, Alliance for Financial Inclusion (AFI) and the G20 Global Partnership for Financial Inclusion (GPFI) all recommended greater access to financial services at affordable prices for growth and to mitigate inequality. Ownership of an account and access to digital payments thus became the national and international norms for inclusion. India pursued financial inclusion through branch expansion, priority sector lending, the business correspondent model, simplified Know Your Customer (KYC), financial literacy programmes, among others. A major milestone was the launch of the PMJDY in 2014, which gave several people the access to formal banking services. India also used technology-based solutions such as the secure digital identity through Aadhaar, UPI, DPI initiatives like DigiLocker, the Account Aggregator framework and low-cost payments for expanding financial inclusion.

As financial inclusion initiatives expanded, researchers began to question whether mere access to formal financial services an adequate measure of financial inclusion. Several studies also revealed that many account holders remained largely cash dependent

and that account ownership was not necessarily linked to increased savings, credit access and improved financial well-being. This led to a paradigm change: the access to the formal financial system is no longer defined by account ownership but rather by the capacity to use, benefit and remain engaged in the formal financial system. This directed to shift the focus from account ownership to the capacity to have a financial capability, to engage and to have trust with digital financial services to achieve economic well-being.

Despite these limitations, many studies continue to use access-based indicators (Demirgüç-Kunt et al., 2022; World Bank, 2022), which refer to decreases in exclusion rather than the variation in benefit received in participation. Individuals may have access to digital financial products, but they derive limited benefits if they are unable to use them effectively. This suggests that access is only the first step towards financial inclusion, not the complete solution. As financial services have become increasingly digital, researchers have begun to focus on digital financial inclusion, recognising that meaningful inclusion depends on more than merely providing access.

Evolution of Digital Financial Inclusion

In recent years, financial inclusion has taken a new form, moving beyond physical infrastructure to facilitate the provision and access to financial services via mobile banking, digital wallets, fintech applications, biometric authentication and interoperable payment options. Digital financial inclusion complements financial inclusion by ensuring that the barriers to access, use and benefit from formal financial services can be overcome using digital solutions. As identified by the World Bank, International Monetary Fund (IMF) and Organisation for Economic Co-operation and Development (OECD), digital financial inclusion is a key enabler to inclusive development and lower

transaction costs and increased transparency.

India is a perfect example of this change. Aadhaar, UPI, DPI components like DigiLocker, e-KYC and the Account Aggregator framework have helped millions of people in opening accounts, get digital identity, make instant fund transfers and access financial products through their mobile phones. Growing UPI's transaction witnesses, the scale of digital financial transformation in India. Digital financial services are always associated with convenience, reduced costs, financial resilience, better credit access, better opportunities for small business and efficient Government benefit transfers.

Studies moved from access to engagement as digital ecosystems grew. Early studies relied on indicators such as account ownership, smartphone ownership, access to the internet and digital payments (Demirgüç-Kunt et al., 2022; Sarma, 2008), but these are not measures of effective use, as individuals with the same access demonstrate varying levels of use and outcomes. This has created a trend of distinguishing digital access from meaningful participation, as individuals must also have an understanding of financial products, understand the risk, trust digital systems and connect with digital finance in everyday life. This illustrates that digital financial inclusion is a multifaceted process involving behavioural, technological and social components.

There have been partial explanations about this variation in different literatures (Ozili, 2018; Ferilli et al., 2024), including financial literacy research, technology adoption research, social capital research, and digital trust research, and the more recent digital capital research, which focuses on digital resources and competencies. Each provides valuable insight but considers those factors separately, providing only partial explanations for financial behaviour in the digital realm. There is broad consensus that

digital financial inclusion involves more than access; it involves adoption, engagement and use, but there is little understanding of how these enablers work together, which is where the theoretical review to come.

Human Capital Theory

According to human capital theory, the differences in financial outcomes are driven by differences in knowledge, education and skills, and this has been further expanded to explain variation in digital financial service adoption and use. According to Schultz (1961) and Becker (1964), education, knowledge, training and skills can boost productivity and decision-making ability, and equip individuals to learn, adapt to technology, and make rational economic decisions. This perspective is often used in financial and digital literacy and technology adoption.

Financial literacy is about understanding products, assessing risk and making informed choices, whereas digital literacy focuses on the skills required to use mobile banking, digital payments and internet banking. The theory's assertion that investments in knowledge and skills increase capacity to benefit from economic activity. This was also supported by several empirical studies showing that individuals with greater financial and digital literacy are more inclined towards the use of digital payments, credit access and better financial management (Lusardi & Mitchell, 2014; OECD, 2022).

Previous studies also finds that not everyone with similar skills and knowledge is equally inclined to use e-wallets, some who are equally skilful and knowledgeable are sticking to cash (Tandilino et al., 2025; Kamboj & Sharma, 2025). This disparity suggests that there are other factors including trust, security, social influence, institutional support and prior experience with technology influencing financial behaviour of individuals. Another constraint is that

the human capital theory addresses the development of individual capacity but not whether it leads to meaningful financial participation or outcomes.

Overall, the human capital theory serves as a useful starting point for the ITC Framework dimension of Digital Capability Capital and underpins the expectation that more financial and digital skills increase readiness to access digital financial services. It also highlights the requirement for a more inclusive lens, the Capability approach, to consider the extent to which the investment in skills and resources is translated into real opportunities and outcomes.

Capability Approach

Human capital theory relates to the learning of skills, while the Capability approach (Sen, 1985, 1999; Nussbaum, 2000) focuses on well-being in terms of the freedoms and opportunities people have to make what they value, rather than in terms of their assets.

The distinction is directly applicable to the concept of digital financial inclusion: access to a bank account, smartphone, internet connection or payment platform, is a resource that transforms into a valuable outcome only when it allows an individual to understand financial products, use the technology, evaluate risk and make informed choices. The argument is that equal access does not guarantee equal participation or benefit. Recent studies increasingly assesses digital financial inclusion by measures of resilience and well-being, not just access (Demirgüç-Kunt et al., 2022; Klapper et al., 2025). The approach has also been used in digital inclusion studies to highlight the importance of individual, social and institutional factors in shaping the benefit of access to digital services, particularly in the field of digital finance, where social support, age, gender, income and education all influence access.

There are some drawbacks in the Capability approach despite these strengths. It does not contain an in-depth understanding of the technology adoption

process itself. Its general and context-specific definition of “capability” is difficult to measure across studies, leading to inconsistent empirical results. For this review, the approach gives the ITC framework, a necessary theoretical context, by shifting the focus from infrastructure to outcomes and capacity, and viewing financial inclusion as the first step on a longer path to capability, trust and continued engagement.

Technology Acceptance Theory

The Capability approach leaves the behavioural process open: why people accept or reject a particular digital financial technology and this can be explained through Technology Acceptance Theory (TAT), specifically the Technology Acceptance Model (TAM) (Davis, 1989). TAM strongly suggests that attitude towards a technology is affected by perceived usefulness and perceived ease of use, which in turn, influence intention and actual use. It has been one of the most widely used lenses in 30 years of study in the banking, e-commerce, healthcare and public services industries.

In digital financial inclusion, TAM is being used extensively to explain adoption of internet banking, mobile banking, digital wallets, UPI and contactless payments. It underscores that services that are perceived as convenient, reliable and easy to use are consistently more readily adopted. Later extensions have added trust, perceived security, privacy, facilitating conditions, social influence and perceived risk for digital financial transactions, which involve sharing personal and financial data. The Indian context is relevant to the theory when considering the fast adoption rate of UPI, as it is easy to use, quick and interoperable (Zahid, 2022; Venkatesh et al., 2003; Davis, Bagozzi & Warshaw, 1989).

Despite these strengths, TAM has some significant caveats for digital financial inclusion. It is argued that adoption of one payment app does not necessarily

mean uptake of other services such as savings, insurance, credit or investment, and so technology is a tool, not a goal. The theory is also based on individual perception, not social or economic context and does not adequately consider financial literacy, income, regulatory protection or community support. It also assumes that positive perceptions lead to continued usage but the users often terminate usage after failed transactions, fraud or poor service.

While TAM accounts for intentions to adopt well, the core of TAM does not account for meaningful and sustained digital financial inclusion. TAM highlights that financial decisions are made not only based on attitudes toward technology but also on social context, such as family, peers, community networks and institutional relationships.

Social Capital Theory

Adoption and continued use of financial services are not likely to happen in isolation; they are influenced by family, friends, communities and institutions, as Social Capital theory suggests. The concept has been developed in different ways by Bourdieu in 1986, Coleman in 1988 and Putnam in 1993 and 2000. Bourdieu emphasised on enduring social relationships, Coleman focused on trust, reciprocity and norms and Putnam eyed on civic participation. All three commonly emphasised on the fact that opportunities are not always created by the individual's own actions.

In the context of financial inclusion, this means that access to knowledge, experience and support from social networks is as important as individual capability and that advice from trusted family, friends or community leaders decreases uncertainty about financial products. This is particularly important for digital financial inclusion, where users acquire knowledge and skills about digital payment, mobile banking or fintech applications through observation

rather than formal instruction. Empirical studies shows that peer recommendations, social learning and community participation positively contribute to adoption and sustained use of digital financial services (Coleman, 1988; Putnam, 2000).

Social capital theory, however, places relatively less importance on individual capability, technology use and digital infrastructure, as low technology uptake and poor cyber security or digital privacy are not enough to compensate for poor social networks, and social networks alone cannot completely offset the risk of digital finance. The effect of social capital is also moderated by the broader social, cultural and institutional factors, as social networks can reinforce resistance to digital finance where cash preference or distrust is culturally ingrained.

Social capital theory argues that sustained participation requires social learning and peer influence, with institutional support and trusted relationships, as well as individual capability and technology acceptance. It is a useful lens for this review, explaining the sustainability of digital financial adoption and directly informing the Digital Participation Capital dimension of the ITC Framework.

Digital Capital

The earlier “digital divide” framing (access versus no access) gave way to an interest in how people use, build and adopt digital resources, leading to a focus on “digital capital”. Digital capital, a concept introduced by Ragnedda (2018) and developed by Ragnedda and Ruiu (2020) based on Bourdieu's (1986) digital theory of capital, refers to the ability of people to turn digital access into social, cultural and economic value, encompassing digital resources (devices, connectivity, infrastructure) and digital competencies (knowledge and skills needed to successfully use digital tools). It has been used in education, work, public service, health care and

entrepreneurship. It is also evident that higher levels of digital capital are linked to higher levels of digital learning, public services and professional networks.

As access to digital financial services is intertwined with digital participation more broadly, this idea is now gaining traction in the realm of digital financial inclusion studies. It argues that higher digital literacy should enhance the use of mobile banking, digital payments and online financial services. However, a closer look shows that being digitally active is not the same as participating in digital finance. Most digital capital studies focuses on areas such as communication, education, work and access to e-government services (Ragnedda, 2018; Van Dijk, 2020). In contrast, digital financial participation involves additional requirements including managing financial risks, understanding regulatory requirements, and trusting digital financial institutions and platforms. Digital financial behaviour cannot be defined solely by digital competence, as a person with digital competency can still not use digital financial services because of fraud, a person with moderate digital competency can be financial active because of financial literacy and institutional trust. Digital capital also helps to account for involvement in digital environments, but not involvement in activities that lead to tangible financial results.

Digital capital is a key element but not the only element of digital financial inclusion, as it is a good indicator of digital resources and competencies. However, it does not fully capture three dimensions that are specific to the financial domain: monetary risk and financial-product knowledge, trust in financial institutions and regulatory systems, and the translation of digital engagement into tangible financial outcomes such as savings, credit access and financial resilience. The ITC framework extends the existing digital capital literature by introducing two

finance-specific dimensions: Digital Trust Capital and Digital Participation Capital. Thus, the ITC framework can be considered as a financial ecosystem-specific extension of digital capital theory.

Digital Trust

Trust plays a vital role in determining whether individuals adopt and continue using digital financial services. Because digital financial services involve money transfers, the sharing of personal information and reliance on technology, individuals must also have confidence in the security, privacy, reliability and integrity of the digital financial system. Concerns about fraud, data misuse and institutional reliability can discourage people from using these services, even when access is readily available. Digital trust is the trust in digital technologies, service providers and the institutions such as regulators and cyber security systems that enable secure and reliable digital interactions.

Trust was identified as key factor in early e-commerce and internet banking studies, both in terms of initial adoption (Gefen, Karahanna & Straub, 2003; Mayer, Davis & Schoorman, 1995; McKnight, Choudhury & Kacmar, 2002) and in terms of continued meaningful use of digital finance. Fraud, cybercrime and concerns around data misuse reduce mobile banking and digital lending uptake, whereas users who consider digital platforms as secure and reliable are more likely to use the service. However, recent studies has identified distinct dimensions of trust: in technology (reliability and security), in financial institutions (responsible conduct) and in regulatory frameworks (governance, data protection, redressal for grievance) (Gefen, Karahanna & Straub, 2003; Mayer, Davis & Schoorman, 1995; McKnight, Choudhury & Kacmar, 2002). This is especially true in India, where the rapid pace of DPI has been matched by increasing incidents of fraud and identity theft, with the RBI releasing cyber security guidelines, consumer

protection and grievance redressal guidelines.

Even though sustained digital financial inclusion demands repeated positive experience, diversification of services and long-term institutional behavior, digital trust is consistently said to be important but is typically examined as an individual element without attention to how it affects continuation of services. For this reason, digital trust is an important link between capability and participation. People who have more financial knowledge and understanding of digital technologies may be less likely to join digital financial systems if they feel they are not secure. On the other hand, people who become more confident are more likely to engage and achieve greater financial outcomes.

Synthesis of the Literature

Studies over the past two decades exhibits a clear shift in the understanding of financial inclusion. Early studies primarily focused on expanding access to formal financial services (Sarma, 2008; Alliance for Financial Inclusion, 2020). More recent studies, however, emphasises that meaningful digital financial inclusion also depends on individuals' trust in digital systems, their willingness to adopt and their continued use over time. Despite these advances, the literature remains fragmented. Human Capital Theory explains the role of education and skills, the Capability Approach focuses on converting these resources into meaningful outcomes, Technology Acceptance Theory examines adoption behaviour, Social Capital Theory highlights the influence of social networks and institutions, Digital Capital Theory emphasises digital resources and competencies and Digital Trust explores confidence in digital systems. While each perspective offers valuable insights, they have largely been studied in isolation. As a result, the interdependent roles of digital capabilities, technology adoption, trust and participation have not been adequately integrated. This suggests the need

for a unified framework that treats these elements as interconnected components of a single process leading to meaningful digital financial inclusion.

Another finding from this study is that access is not the sole determinant of outcomes. People with equal access to phones, accounts, internet and digital financial platforms exhibit very different levels of participation and well-being. The literature is generally consistent that digital financial inclusion is multidimensional. Each dimension provides an opportunity to individuals to access, to use, to participate, to engage and improve confidence in digital financial platforms. However, few studies integrate these complementary views and understand the link between access and participation and financial outcomes in a more encompassing way than by looking at the interactions between.

More recently, Kamboj and Sharma (2025) have identified 311 studies on digital financial inclusion across Scopus-indexed publications, finding that the field is still structured in fragmented thematic clusters, including mobile money, financial services and financial literacy, entrepreneurship, and financial inclusion. He also proposes an alternative integrative framework based on citation and keyword co-occurrence analysis of the published literature. This review did not create or uncover this problem. Instead, it highlights a longstanding issue in the field: studies on access, usage and behavioural factors have generally been conducted separately rather than as part of an integrated framework. The present review adopts a different approach to integration. Rather than identifying patterns in citation networks or keywords, it develops the four dimensions of the ITC framework through a theory-driven synthesis of the literature. These dimensions: digital access, digital capability, digital trust and digital participation capture the key mechanisms that explain why individuals with similar access to digital financial services often

experience different outcomes. This deeper, theory-based explanation goes beyond what bibliometric mapping can provide.

Table 1 and Table 2 summarise the main contributions and limitations of the key literature reviewed. Together, they show that while each theoretical perspective explains an important aspect of digital financial inclusion, none provides a complete understanding of the factors that shape meaningful inclusion. This highlights the need for an integrated conceptual approach, which is developed in the following sections through the identification of the research gap and the proposed InclusiveTech Capital framework.

Table 1: Comparative Summary of Major Literature Streams

Literature Stream	Primary Contribution	Key Limitation
Financial Inclusion	Expands access to formal financial services	Focuses predominantly on access rather than outcomes
Digital Financial Inclusion	Explains the role of digital technologies in financial service delivery	Limited explanation of differences in participation and financial well-being
Human Capital Theory	Explains the importance of education, financial literacy and digital capability	Gives limited attention to trust, participation and institutional factors
Capability Approach	Explains why access does not automatically lead to meaningful outcomes	Does not explicitly explain technology adoption or financial behaviour
Technology Acceptance Theory	Explains adoption of digital financial technologies	Focuses primarily on adoption rather than sustained participation
Social Capital Theory	Explains the influence of social relationships and institutional support	Gives limited attention to digital capability and technological resources
Digital Capital	Explains digital participation through digital resources and competencies	Focuses on general digital environments rather than digital financial ecosystems
Digital Trust	Explains confidence in digital technologies and institutions	Generally examined independently of other enabling dimensions

Table 2: Review of the Main Literature on Digital Financial Inclusion and its Theoretical Foundations

Author(s) / Study	Theory / Concept	Key Contribution	Limitation Identified	Relevance to ITC Framework
Schultz (1961); Becker (1964)	Human Capital Theory	Explains how education, knowledge and skills improve individual productivity and decision-making	Focuses mainly on individual capability; does not explain trust or participation	Forms the basis of digital capability capital

Author(s) / Study	Theory / Concept	Key Contribution	Limitation Identified	Relevance to ITC Framework
Sen (1985, 1999); Nussbaum (2000)	Capability Approach	Emphasises that access to resources creates value only when individuals can convert them into meaningful outcomes	Does not explicitly explain technology adoption or sustained digital financial behaviour	Supports the capability-based perspective of the framework
Davis (1989); Venkatesh et al. (2003)	Technology Acceptance Theory	Explains adoption of technology through perceived usefulness and ease of use	Primarily explains adoption rather than sustained financial participation	Supports the behavioural aspects of digital financial engagement
Bourdieu (1986); Coleman (1988); Putnam (1993, 2000)	Social Capital Theory	Highlights the role of social relationships, trust and institutional support in shaping behaviour	Limited attention to digital capability and financial technology	Supports digital participation capital
Ragnedda (2018); Ragnedda & Ruii (2020); Van Dijk (2020)	Digital Capital	Digital participation is explained through digital resources and digital competencies	Focuses on general digital environments rather than digital financial ecosystems	Provides the conceptual foundation extended by the ITC Framework
Gefen et al. (2003); Mayer et al. (1995); McKnight et al. (2002)	Digital Trust	Demonstrates that trust in technology and institutions influences technology adoption and continued use	Usually examined independently of financial capability and participation	Forms the basis of Digital Trust Capital
Lusardi & Mitchell (2014); OECD (2022, 2025)	Financial Literacy and Financial Capability	Shows that financial literacy improves financial behaviour and the adoption of digital finance	Financial literacy alone cannot explain differences in participation or financial well-being	Reinforces the importance of digital capacity capital
Demirgüç-Kunt et al. (2022); World Bank (2025)	Financial Inclusion	Demonstrates the global expansion of formal financial access through digital infrastructure	Access-based indicators provide a limited explanation of meaningful participation and well-being	Establishes the need to move beyond access-based measures
Ozili (2018); Sahay et al. (2020); IMF (2024)	Digital Financial Inclusion	Explains how digital technologies improve the accessibility and efficiency of financial services	Provides a limited explanation of why users with similar access experience different outcomes	Motivated the need for an integrated conceptual framework

Author(s) / Study	Theory / Concept	Key Contribution	Limitation Identified	Relevance to ITC Framework
Klapper et al. (2025); Kamboj & Sharma (2025)	Recent Digital Financial Inclusion Trends	Documents continuing global growth in connectivity-based financial inclusion and maps the field's fragmented thematic clusters through bibliometric analysis	Bibliometric mapping identifies thematic clusters but does not offer a theory-driven explanation of why access, capability, trust and participation diverge	Confirms the currency of the research gap and motivates the theory-driven synthesis underlying the ITC Framework

Research Gap

The review of literature reveals significant insights and developments around financial inclusion and its digitalization, ranging from the significance of access to the integration of digital competence, technology adoption, social participation and trust. These studies have collectively contributed to a paradigm shift in the field on how financial inclusion is understood, from access to meaningful digital engagement.

Despite this, the literature is not clear about the interactions between these enablers. Human Capital Theory focuses on education, financial literacy and digital skills; the Capability Approach links resource access to outcomes; Technology Acceptance Theory focuses on adoption behaviour; Social Capital Theory focuses on social networks and institutional support; and Digital Capital focuses on digital resource and competency differences. Each one is useful on its own, but each is generally used in isolation and provides only a partial explanation.

As a result, one the paradox still remains: why do people with identical access to bank accounts, mobile phones, internet and digital payment platforms have such varied experiences and levels of digital financial participation and financial well-being? Previous studies suggests that these differences cannot be explained by access alone. Although access, capability, trust and participation are all recognised as important, their combined influence remains under

examined. Most empirical studies examine only parts of this relationship, such as the link between access and capability or between trust and participation, without bringing these elements together within a broader conceptual framework. As a result, there is limited understanding of how these factors interact to support sustained engagement with digital financial services and improve sustained financial well-being.

An identified constraint of digital capital is that it mainly explains digital inequality in terms of access to technology and digital skills. It does not fully address the monetary risk, trust in financial institutions, consumer protection, regulatory safeguards and long-term financial decision-making. It is evident that participating in the digital world does not necessarily mean that individuals can participate safely, confidently and effectively in digital financial ecosystems.

While the literature has separately identified the importance of capability, technology adoption, social relationships, digital competence and trust as factors, current financial inclusion indicators are overwhelmingly access-focused. There is no current conceptual framework that integrates these elements. There is also a lack of theoretical foundation to support policy and intervention development that goes beyond mere access.

This study fills that gap by creating the InclusiveTech Capital framework, which brings together four

complementary dimensions: Digital Access Capital, Digital Capability Capital, Digital Trust Capital and Digital Participation Capital. ITC does not act as stand-alone capitals, but it acts as interacting forms of capital that work together to allow people to access, use and maintain engagement with digital financial opportunities in ways that contribute to their economic empowerment, financial well-being and active participation.

Positioning relative to existing integrative frameworks

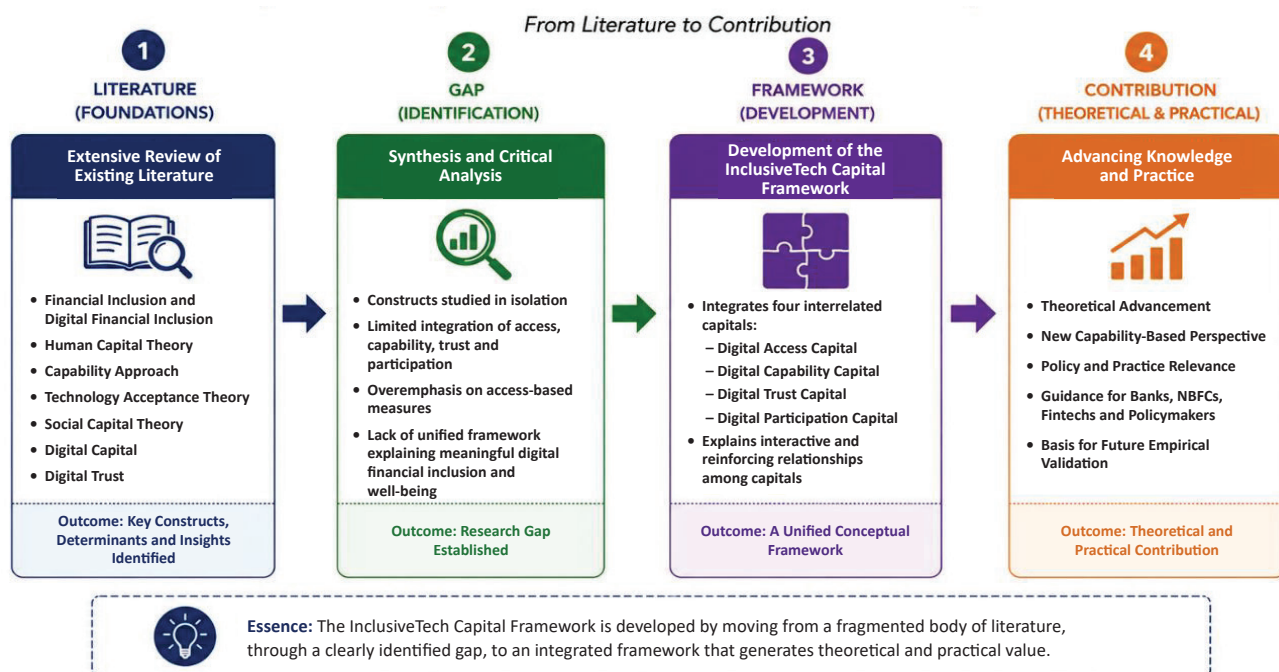
Although two existing frameworks already incorporate some elements of this integration, neither provides a comprehensive explanation of how these dimensions interact to shape meaningful digital financial inclusion. This highlights the need for the InclusiveTech Capital (ITC) Framework, which brings these interrelated dimensions together within a single conceptual model. Financial inclusion is no longer viewed only in terms of account ownership. Existing frameworks, such as the Access, Usage, Quality (AUQ) model and its extension to the Access Usage Quality Impact (AUQI) framework developed by the Alliance for Financial Inclusion (AFI) and CGAP, recognise that meaningful financial inclusion also depends on how financial services are used, the quality of those services, and the outcomes they generate. Digital participation has already been addressed through the concept of digital capital (Ragnedda, 2018; Ragnedda & Rui, 2020),

which refers to digital resources and competencies.

The ITC framework is different from Access-Usage-Quality in terms of the meaning of each dimension. The usage and quality dimensions of Access-Usage-Quality are generally translated into service delivery related measures at the system and provider level, but not as person level capacities. Rather than assuming that digital competence is implicit in usage, ITC explicitly defines that competence as capacity to transform usage opportunities and service quality into actual benefit of the user. This is especially significant in the context of a financial services landscape where the ability to use a channel should not be taken for granted due to its availability.

The ITC framework differs from digital capital in scope. The InclusiveTech Capital (ITC) framework can be understood as a domain-specific extension of digital capital. It incorporates factors that are unique to digital finance, including trust in financial institutions, monetary risk, consumer protection and the regulatory environment. These factors play a critical role in shaping meaningful and sustained participation in digital financial services. Read in this way, the ITC Framework operationalizes the Access, Usage, Quality space from the perspective of digital capital theory, with a finance-specific trust dimension, but without competing with either of the two traditions.

Figure 1: Conceptual Development process of the InclusiveTech Capital framework



Source: Developed by the author based on the integrative synthesis of the reviewed literature.

Rather than introducing another factor, this review integrates existing theoretical perspectives into a unified framework that explains how digital access, capability, trust and participation interact to shape meaningful digital financial inclusion. In doing so, it moves the discussion beyond a narrow focus on access towards a capability-based understanding of inclusion and provides a stronger theoretical foundation for future studies, policy and practice.

Methodology

Research Design

This study uses an Integrative Literature Review (ILR) methodology defined as a critical analysis of theoretical and empirical literature that supports new conceptualisation (Torraco, 2005; Snyder, 2019). This is appropriate to digital financial inclusion, a multi-disciplinary space that brings together finance, information systems, economics, sociology and public policy, and is well-termed to discussing the

reasons for the divergent participation and well-being outcomes of people who have similar access to digital financial ecosystems.

Literature Search Strategy

The review covered literature published between 2000 and 2025, along with seminal theoretical works published earlier.

Search Strategy and Keywords

Keywords included “Financial Inclusion,” “Digital Financial Inclusion,” “Financial Capability,” “Financial Well-being,” “Digital Capital,” “Digital Literacy,” “Financial Literacy,” “Digital Trust,” “Technology Acceptance,” “Technology Acceptance Model,” “Capability Approach,” “Human Capital Theory,” “Social Capital Theory,” “Digital Public Infrastructure,” “FinTech,” “Digital Payments,” “Unified Payments Interface (UPI)” and “Financial Participation,” combined using Boolean operators.

Inclusion and Exclusion Criteria

The inclusion criteria were: peer-reviewed journal articles in English, seminal theoretical research that underpins the four key theories, recent empirical studies on digital financial inclusion, fintech adoption, financial capability and digital participation, and reports of recognised international organisations and regulators.

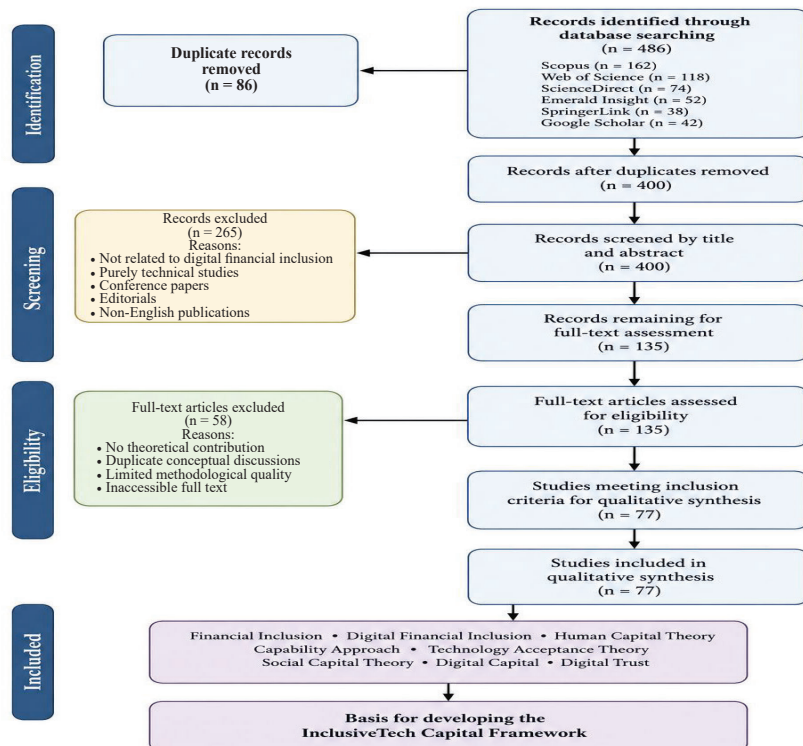
Exclusion criteria: conference abstracts and unpublished manuscripts; publications that are not in English; technical papers only on information systems and not on financial inclusion; conceptual or empirical papers not directly related to digital financial participation; and duplicate publications.

The screening process followed the PRISMA 2020 reporting approach (Page et al., 2021), which is used here purely as a transparent reporting convention for the search, screening and selection stages rather than as a claim that this integrative review meets the criteria of a quantitative systematic review. At both the title/abstract and full-text stages, records were additionally filtered by document type (peer-reviewed articles, seminal books/chapters, and reports of recognised international organisations and regulators were retained; conference abstracts and editorials were not) and by subject relevance (records outside the domains of financial inclusion, digital financial inclusion or the six theoretical foundations of the ITC Framework were excluded), consistent with the inclusion and exclusion criteria stated above.

Figure 2: Literature Screening Process

PRISMA 2020 FLOW DIAGRAM FOR LITERATURE SELECTION

Identification of studies via databases and registers



Source: Screening stages adapted from the PRISMA reporting approach (Page et al., 2021); literature search, screening and synthesis conducted by the author.

A total of 486 publications were retrieved from the six databases and registers searched (Scopus, Web of Science, ScienceDirect, Emerald Insight, SpringerLink and Google Scholar). Following the removal of 86 duplicate records, 400 studies were screened by title and abstract; 265 records were excluded at this stage for reasons including limited relevance to digital financial inclusion, purely technical (information systems) focus, conference papers, editorials and non-English publications, leaving 135 records for full-text assessment. Of these, 58 full-text articles were excluded (mainly for lacking a clear theoretical contribution or financial inclusion focus, duplicating conceptual discussions already captured, limited methodological quality or inaccessible full text), leaving 77 studies that were included in the qualitative synthesis and that formed the basis for developing the InclusiveTech Capital framework. This screening funnel provides a transparent and systematic approach to identifying and selecting the source material. The subsequent analysis follows an interpretive thematic synthesis, which is appropriate for an integrative literature review, rather than the effect-size aggregation typically employed in systematic reviews of intervention studies.

Analysis and Synthesis of the Literature

A thematic synthesis strategy was employed to extract themes, theories and empirical evidence that emerged repeatedly. These four dimensions emerged in multiple theories: digital access, digital capability, digital trust and digital participation. Each has been the subject of significant scholarly study, with studies on financial inclusion focusing on access, human capital and capability focusing on skills, technology acceptance focusing on adoption behaviour, and social capital and digital capital focusing on relationships and digital resources, respectively. This synthesis showed that there is a conceptual deficit in the absence of an integrated framework that explains

how these four dimensions combine to create meaningful digital financial inclusion, which is why the ITC framework is being developed.

Methodological Contribution

This review is more than a summative appraisal of previous research; it is a foundational conceptualization of the InclusiveTech Capital framework and a critical synthesis of several theoretical perspectives and disciplinary results in the field. The framework does not stand alone as a new theory, but a synthesis providing a holistic explanation of digital financial inclusion beyond access.

The InclusiveTech Capital Framework

The literature review shows that meaningful digital financial inclusion cannot be explained by any single theory. Financial access, social relationships, digital and financial capabilities, and trust in technology have all been identified as important contributors. Together, these findings highlight the need for a broader understanding of how these dimensions interact within digital financial ecosystems to support meaningful and sustained inclusion.

In response to this, the study proposes a framework, InclusiveTech Capital (ITC), that sees digital financial inclusion as the sum of various capitals and not merely one enabling capital. InclusiveTech Capital is the digital resources, individual capacities, institutional trust and participatory capacities that empower people to always use, access, participate and gain from digital financial services. ITC expands on access-based approaches and underscores that availability of infrastructure and products is not enough for meaningful inclusion.

The four theoretical foundations identified through the review are as follows: Human Capital Theory (value added of financial and digital knowledge and skills build capacity); Capability Approach (value of access depends on a person's freedom and ability to

use it purposefully); Technology Acceptance Theory (behavioural process of adopting digital financial technologies); and Social Capital Theory (social connections and institutions sustain participation). It also builds on digital capital, with a focus on digital resources and skills, and digital trust, which sets out the conditions for trust in digital financial systems that drive meaningful engagement.

These are not mutually exclusive explanations, rather they are interdependent and connected, and are incorporated within a single conceptual framework in the ITC framework. The four dimensions are:

- Digital Access Capital: the digital and financial infrastructure needed to access the digital financial ecosystem.
- Digital Capability Capital: the knowledge, financial literacy, digital skills and competencies needed to understand and use digital financial services effectively.
- Digital Trust Capital: the trust people place in digital technologies, financial institutions, regulatory frameworks and the security of digital transactions.
- Digital Participation Capital: the extent to which an individual is actively, consistently and meaningfully involved in digital financial services as part of everyday financial life.

The four dimensions are not separate but complementary kinds of capital that reinforce one another in determining a person's ability to achieve financial security and economic empowerment.

The ITC framework is unique in focusing specifically on digital financial ecosystems, where financial decisions also include monetary risk, institutional trust, regulation and ongoing formal financial

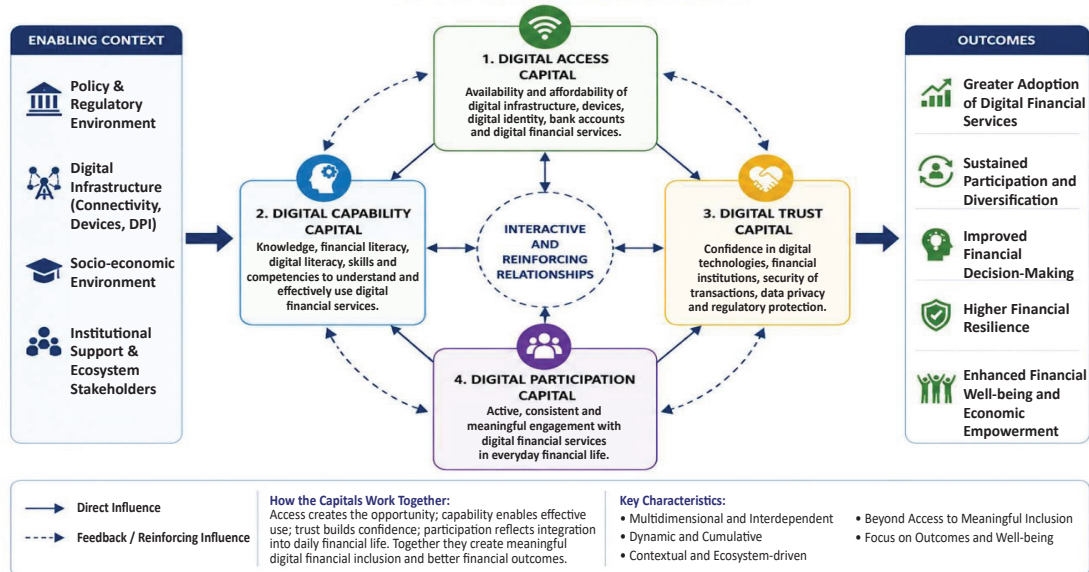
service utilization, in addition to digital competence. It also represents a change in the way inclusion is measured as traditional measures reflect access and not meaningful inclusion. Overall, meaningful digital financial inclusion should be viewed as a dynamic process rather than a fixed outcome. Progress in one dimension depends on the strength of the others and a weakness in any one area can limit overall inclusion. The InclusiveTech Capital framework, therefore, represents more than the sum of its individual dimensions. It highlights how access, capability, trust, and participation continuously interact and evolve, offering a more comprehensive understanding of digital financial. The four dimensions of the framework and their interconnections are illustrated in Figure 3.

Framework Development

Conceptual Architecture of the InclusiveTech Capital Framework

The ITC framework defines meaningful digital financial inclusion as a multi-dimensional journey, where the four complementary streams of capital converge around a person's journey towards digital finance. Meaningful digital financial inclusion is not simply a matter of access or participation. It is a progressive process in which access provides the foundation, capability enables effective use, trust builds confidence in digital financial services and participation reflects their sustained integration into everyday financial activities. Together, these dimensions contribute to improved financial well-being and ultimately, greater economic empowerment. The four dimensions are not additive but mutually reinforcing, because a lack of any one of the four can jeopardize outcomes generally.

Figure 3: InclusiveTech Capital Framework
Conceptual Architecture of Meaningful Digital Financial Inclusion
The InclusiveTech Capital Framework



Source: Developed by the author based on the integrative synthesis of the reviewed literature.

This architecture has been built by synthesizing different theories into an integrative approach through the Human Capital Theory, the Capability Approach, the Technology Acceptance Theory, the Social Capital theory and the Digital Capital and Digital Trust literature.

Digital Access Capital

The backbone of the framework is the Digital Access Capital, which includes physical, technological and institutional infrastructure, including smartphones, internet, bank accounts, digital identity, digital payments and low-cost financial services. It has been a constant theme in financial inclusion literature. In India, formal financial access has advanced significantly with PMJDY, Aadhaar and UPI, which have eliminated physical and administrative hurdles. But the ITC framework is based on the assumption that simply having access is not enough. Access is the beginning of inclusion, not the end result.

Digital Capability Capital

Digital Capability Capital consists of the financial and digital literacy, problem-solving ability and technological competence that is required to use digital financial services effectively. Guided by the human capital theory and the capability approach, it acknowledges that digital capability has a positive impact when people are empowered to translate access into positive outcomes such as understanding financial products, comparing products, understanding risk, recognising fraud and using digital platforms safely. This will help to reduce vulnerability to digital exclusion and financial fraud. The ITC framework argues that digital capability capital complements digital access capital by converting infrastructure into real financial outcomes.

Digital Trust Capital

Digital Trust Capital is a trust in financial technologies, institutions, regulatory frameworks and digital transaction processes. It not only about technology,

but how the data is secured, institutions act responsibly and consumers are well protected. This dimension becomes more relevant as digital channels become more common and replace traditional banking. People use and diversify digital financial services when it becomes secure, transparent and reliable. In ITC framework, digital trust capital is shown as the link between capability and participation. The framework also argues that people will not use digital platforms if they do not trust the system though they have the capability and skills to participate.

Digital Participation Capital

The behavioural outcome of the above discussed three dimensions is Digital Participation Capital. It talks about regular use of digital payments, savings, insurance, investments, credit and Government benefit transfers with technology. It is not about occasional technology use but sustained integration of digital financial services into everyday financial decisions. The ITC framework theorizes digital participation capital as a result of an interaction between digital access, digital capability and digital trust capital.

Interaction among the Four Dimensions

The four dimensions are not treated as independent variables, but are seen as interrelated and mutually reinforcing components of the ITC Framework. Digital Access Capital creates opportunity, Digital Capability Capital enables people to use that opportunity, Digital Trust Capital builds confidence to engage and Digital Participation Capital reflects the sustained use. These connections are not linear always. For instance, greater digital literacy can be linked to increased awareness of digital security, which can, in turn, lead to higher levels of trust and increased adoption of additional services. Positive participation experiences can also strengthen trust and in turn, foster uptake of additional services. Digital financial inclusion is, thus,

the synergy between the four dimensions and not the single dimension.

Conceptual propositions of the InclusiveTech Capital Framework

The ITC framework states that four complementary forms of capital are essential to meaningfully include digital financial services. The theory underlying the framework and its basis for empirical studies are stated in the following propositions.

Proposition 1 (P1): Digital Access Capital

P1: Digital access capital creates opportunities for access to digital financial services; access is a prerequisite for meaningful digital financial inclusion but not a sufficient condition alone.

Theoretical basis: financial inclusion literature, digital financial inclusion literature and the capability approach.

Proposition 2 (P2): Digital Capability Capital

P2: Improving meaningful digital financial participation is positively supported by digital capability capital of individuals in accessing, understanding and using digital financial services.

Theoretical basis: human capital theory and the capability approach.

Proposition 3 (P3): Digital Trust Capital

P3: Digital trust capital creates trust in financial technologies and digitally operated institutions, encouraging continued interaction with digital financial systems.

Theoretical basis: technology acceptance theory and digital trust literature.

Proposition 4 (P4): Digital Participation Capital

P4: Higher digital participation capital enables individuals to create sustainable financial returns, resulting in improved financial outcomes and economic empowerment.

Theoretical basis: social capital theory and digital financial inclusion literature.

Proposition 5 (P5): Interaction among the Four Dimensions

P5: Digital Access Capital has a diminishing marginal role to play in meaningful digital financial inclusion as Digital Capability Capital and Digital Trust Capital.

This proposition is falsifiable: empirical evidence that access contributes equally irrespective of the individual's ability or trust level would refute it and support an additive rather than interactive relationship between the four dimensions.

Theoretical basis: the capability approach's account of resource conversion and interaction effects observed in the technology acceptance and digital capital literatures.

Proposition 6 (P6): InclusiveTech Capital and Financial Well-being

P6: InclusiveTech Capital predicts that financial well-being and economic empowerment is measured beyond what access-based indicators can measure alone.

This proposition is falsifiable through nested-model comparison: financial well-being can be explained by a model that includes only access indicators and any additional explanatory power attributed to the ITC framework would be disconfirmed.

Theoretical basis: financial capability and financial well-being literature and the framework's core claim that access-based measurement understates meaningful inclusion.

Expected Results of InclusiveTech Capital

People with high InclusiveTech Capital are expected to be more active in using, engaging in digital financial ecosystems. They are also likely to make good financial choices and be more financially resilient. This will result in better financial outcomes

and economic empowerment. However, if one dimension is weak, then individuals can never enjoy the advantages of digital financial services despite the presence of infrastructure and products. The framework, therefore, focuses not only on the availability of digital financial services, but also on the quality of the people's interaction with digital financial services and the results they achieve.

Theoretical Contributions

The ITC framework is not an entirely new theory but rather a synthesis and extension of existing theoretical strands with the following contributions.

Contribution to Financial Inclusion Literature

The definition of financial inclusion has been largely based on access that are important proxies of infrastructure expansion. But whether access is meaningful and yields financial benefit, has not been addressed. The ITC framework builds on this literature by arguing that access is just the starting point not the end goal of inclusion. Digital Access, Capability and Trust and Participation Capital are included in this framework in a more holistic way to explain why people with the same access get different outcomes.

Contribution to Digital Capital literature

Digital capital research has improved the understanding of digital inequality by demonstrating that participation relies on digital resources and skills, most often within a broader digital environment, including education, work and e-government. The ITC framework expands this literature to digital financial ecosystems, where participation also includes monetary risk, institutional responsibility, consumer protection and long-term financial planning. The framework also introduces Digital Trust Capital and Digital Participation Capital and financial capability in addition to digital competence. The framework, thus, refines the existing theory of digital capital for digital finance rather than supplanting it.

Contribution to Capability approach

The Capability approach underscores that resources create value when people use them with confidence and convert them into meaningful outcomes. This is very much influential in development economics and seen less applied to digital financial inclusion. The ITC framework builds on the Capability approach by seeing financial capability as a leading indicator of meaningful inclusion. It also involves access to digital infrastructure, trust in financial systems and the capacity for consistent and ongoing participation. The framework, thus, offers a more comprehensive picture of the way financial resources contribute to financial outcomes.

Contribution to Digital Finance Literature

The study of digital banking, fintech and digital public infrastructure has expanded quickly, with most of the studies focused around technology adoption, digital payments, innovation and cyber security. The InclusiveTech Capital (ITC) framework extends the Capability Approach by recognising financial capability as a core element of meaningful digital financial inclusion. It emphasises that meaningful inclusion depends not only on access to digital infrastructure but also on confidence in digital financial systems and the ability to engage with them over time. This provides a richer understanding of how digital resources are transformed into positive financial outcomes.

Contribution to Theory Building

Methodologically, the major strength of this study is that multiple complementary theories are integrated systematically into a theory-building process instead of a single theory as have been done in previous studies. The InclusiveTech Capital (ITC) framework brings fragmented knowledge together into a single structure and serves as the basis for designing an instrument for measuring, testing the structural relationships between the four dimensions.

Contribution to Policy and Practice

ITC framework provides practical relevance for policymakers, financial institutions, regulators and development agencies in designing, developing and evaluating digital financial inclusion programmes. Rather than focusing only on digital infrastructure, account ownership or transaction volume, the InclusiveTech Capital (ITC) framework adopts a capability-based perspective built around four complementary dimensions: Digital Access Capital, Digital Capability Capital, Digital Trust Capital and Digital Participation Capital. This approach helps researchers and practitioners identify specific capability gaps and design targeted interventions that promote meaningful participation in digital financial services. In doing so, it supports a broader shift from infrastructure-led expansion towards capability-led empowerment.

Table 3: Summary of Theoretical Contributions

Literature	Contribution of the InclusiveTech Capital Framework
Financial Inclusion Literature	Extends financial inclusion from access-based measurements to meaningful digital participation and financial well-being.
Digital Capital Literature	Develops a domain-specific extension of Digital Capital for digital financial ecosystems by incorporating trust and participation.

Literature	Contribution of the InclusiveTech Capital Framework
Capability Theory	Applies the Capability Approach to digital finance by explaining how access, capability, trust and participation jointly produce meaningful financial outcomes.
Digital Finance Literature	Moves beyond technology adoption to explain sustained digital financial participation and financial well-being.
Theory Building	Integrates human capital theory, capability approach, technology acceptance theory, social capital theory, digital capital and digital trust into a unified conceptual framework.
Policy and Practice	Provides a multidimensional framework for designing and evaluating digital financial inclusion strategies.

Practical Implications

The ITC framework has implications for financial institutions, fintech companies, regulators, policymakers and researchers in the field of digital financial inclusion. The literature examined here demonstrates that extending availability does not necessarily lead to meaningful use and better financial results. The ITC framework instead calls for co-investment across all four dimensions shifting emphasis from access to participation.

Implications for Banks

Traditional metrics such as account opening, deposit mobilisation, transaction size and digitalisation rates continue to be important but not sufficient. Lenses such as understanding that digital access does not mean customers have the ability or confidence to use a wider variety of digital products can help for deeper engagement and longer-term relationships.

Implications for Non-Banking Financial Companies (NBFCs) and FinTech firms

Fintech companies and NBFCs have spearheaded the technological advancements in lending, payments, wealth management and advisory services. Notably, they have also sparked issues related to cyber security, algorithmic transparency and fraud risk.

The ITC framework emphasises that user confidence and capability matter as much as innovation itself. It recommends firms to design consumer-friendly, intuitive services and invest in customer education and fraud awareness, building Digital Capability Capital through user-friendly interfaces, multilingual applications and guided onboarding.

Implications for Policymakers and Regulators

In addition to efforts to increase digital infrastructure and account access, the ITC framework encourages a broader lens when assessing financial inclusion efforts by asking whether individuals can access digital financial services in a safe, secure and productive manner. The capability, trust and participation indicators can be incorporated into financial inclusion monitoring. Regulators should also focus on financial and digital literacy, cyber security regulation, grievance redressal and data protection to build digital trust capital. This multi-dimensional approach is more conducive to the development of coherent, evidence-based and effective policy than an access approach alone.

Implications for Digital Financial Inclusion Programmes

Many digital financial inclusion programmes continue to concentrate on the infrastructure and technology

dimension. The ITC framework calls for infrastructure development to be paired with digital literacy, financial capability, cyber security awareness, consumer education and trust-building measures. This can be achieved through community-based training, local digital banking services and financial education campaigns. The framework also recognises that different population groups require different forms of support. For example, older adults may benefit from initiatives that strengthen digital skills and build trust in digital financial systems, while rural communities may require digital financial services that are accessible, locally relevant and responsive to their specific needs.

Implications for Financial Inclusion Measurement

Current approaches to measuring digital financial inclusion mainly focus on indicators of access, such as account ownership, ATM availability, internet connectivity, smartphone ownership and transaction volume. While these measures capture the availability and use of financial services, they do not necessarily reflect whether these services improve users' financial capabilities and well-being. The ITC framework offers a multi-faceted measurement approach across all four pillars to help policymakers and institutions pinpoint barriers to meaningful inclusion and design interventions based on evidence.

Future Research Directions

The ITC framework is a conceptual framework that combines four interrelated forms of capital to help describe meaningful digital financial inclusion. It is not yet tested and needs to be further developed. The following directions are suggested for further enhancing its theoretical and practical value.

Empirical Validation of the InclusiveTech Capital Framework

The immediate priority is to empirically validate the relationships among the four dimensions of the InclusiveTech Capital (ITC) Framework. This can be

achieved by developing and validating measurement scales for each dimension and testing the proposed relationships using methods such as Confirmatory Factor Analysis (CFA), Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM). Such studies can examine how the four dimensions jointly influence digital financial participation, financial well-being and economic empowerment, while also establishing the reliability and validity of the framework across different populations and contexts.

Development of an InclusiveTech Capital Measurement Scale

Future studies should provide measurable indicators for each dimension and create a standardised multidimensional InclusiveTech Capital Scale for academic research and institutional or regulatory analysis. The framework can also be used alongside existing financial inclusion indicators that measure access, capability, trust and participation, providing a more comprehensive assessment of meaningful digital financial inclusion.

Cross-Country and Cross-Cultural Validation

Future studies should examine the generalisability of the InclusiveTech Capital (ITC) framework across a wide range of digital financial ecosystems, including both developed and developing economies and culturally diverse contexts. Such studies should also investigate how context-specific factors, such as social norms, institutional trust and regulatory environments, influence the relationships among the framework's dimensions and identify any adaptations needed to ensure its applicability across different settings.

Comparative Studies among Population Groups

Factors contributing to digital financial inclusion are also likely different among various demographic

and socioeconomic groups, such as rural and urban population, women and men, younger and older adults, Micro, Small and Medium Enterprises (MSMEs), self-employed, low-income groups, migrant workers and first-time digital finance users. Comparative studies across these groups of the differences in the four ITC dimensions would help to identify capability gaps in the relevant populations and better provide evidence to guide more contextually relevant policy design.

Longitudinal Studies of Digital Financial Inclusion

Current studies mostly reflect a single time period. Longitudinal studies that track InclusiveTech Capital as experience accumulates would provide a more dynamic view of digital financial inclusion as a continuous process of building capability, rather than a static target.

Integration with Emerging Digital Financial Technologies

Future studies can investigate the impact of emerging technologies like AI-based financial services, Open Banking, Account Aggregator ecosystems, Central Bank Digital Currencies, embedded finance, digital lending, decentralised finance, Buy Now Pay Later and blockchain-based services on the four ITC dimensions. ITC framework can be adapted to tackle issues like data privacy, cyber security and algorithmic transparency.

Behavioural and Psychological Dimensions

Future studies could extend the InclusiveTech Capital (ITC) framework by incorporating behavioural and psychological factors, such as financial self-efficacy, financial confidence, risk perception, digital anxiety, technology readiness and behavioural biases. These factors may act as antecedents, mediators or moderators of InclusiveTech Capital and help explain

differences in individuals' participation in digital financial services.

Evaluation of Policies and Institutional Research

The ITC framework can also guide evaluation of financial inclusion policy and institutional initiatives by assessing their impact on Digital Access, Capability, Trust and Participation Capital rather than access-based metrics alone, offering more robust evidence of programme effectiveness.

Extension of the Framework

The InclusiveTech Capital (ITC) framework should continue to evolve alongside advances in digital finance. Future studies can further refine the framework by exploring additional dimensions, examining contextual and moderating factors, adapting it to specific financial sectors or user groups and integrating it with complementary theoretical frameworks. Such efforts will strengthen its conceptual foundations and enhance its relevance across diverse digital financial contexts.

Conclusion

In India, digital public infrastructure and technology-driven financial services have transformed financial inclusion, with PMJDY and Aadhaar and UPI contributing to a significant increase in access to formal financial services. However, access is not enough to facilitate meaningful inclusion; people with similar access still exhibit different extents of participation, economic empowerment and economic well-being.

This study addresses this gap by synthesising Human Capital Theory, the Capability Approach, Technology Acceptance Theory, Social Capital Theory, Digital Capital and Digital Trust into the InclusiveTech Capital (ITC) framework. Four interrelated dimensions of ITC

framework together explain what enables people to participate meaningfully in the digital financial ecosystem, moving the understanding of digital financial inclusion from infrastructure and access toward capability, sustained participation and financial outcomes.

Theoretically, the study offers a conceptual framework integrating previously disparate perspectives on digital financial inclusion, extends digital capital theory into financial ecosystems. The framework brings a capability-based lens that links digital financial inclusion to financial well-being and economic empowerment, providing a foundation for future empirical work.

The framework also carries practical significance for policymakers, regulators, financial institutions, fintech firms and development agencies, supporting the design and evaluation of digital financial inclusion programmes around capability building, trust building and long-term engagement rather than access indicators alone. It contributes to more effective, inclusive and sustainable digital financial ecosystems.

Like all conceptual studies, this study is subject to limitations: the framework is not yet empirically tested and the relationships between the four dimensions are theoretical. Future studies should create measurement scales, test it in various demographic and institutional contexts and explore its applicability to new digital financial technologies.

Meaningful digital financial inclusion entails not just access to digital financial services, but also the ability to use them, the trust to rely on them and sustained engagement to reap the benefits from them. The InclusiveTech Capital (ITC) Framework provides a common conceptual language for understanding meaningful digital financial inclusion and offers

new directions for research, policy and practice. It emphasises that the success of digital financial inclusion should be assessed not only by the number of accounts opened or transactions completed, but by the extent to which digital financial services enhance participation, improve financial well-being and promote economic empowerment.

References

- Alliance for Financial Inclusion. (2020). An AFI policy framework for digital financial inclusion.
- Ansar, S., Klapper, L., & Singer, D. (2025). Financial inclusion and economic development: A review of the data and evidence (Policy Research Working Paper No. 11021). World Bank.
- Atkinson, A. & Messy, F. (2012). Measurement of financial literacy. OECD Working Papers on Finance, Insurance and Private Pensions.
- Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). Greenwood Press.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R. P. & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2022). The Global Findex Database 2021:

Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank.

Ferilli, G., Paiella, M., Vanin, P., & Walsh, K. (2024). FinTech innovation and digital financial inclusion. *Research in International Business and Finance*, 68, 102232.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.

International Monetary Fund. (2024). India financial system stability assessment: Digital financial services and inclusion. IMF.

Kamboj, V., & Sharma, D. (2025). Mapping the landscape of digital financial inclusion and proposing integrative framework: trends, influential works, and future directions. *Humanities and Social Sciences Communications*, 12(1), Article 1082.

Klapper, L., Singer, D., Starita, L., & Norris, A. (2025). The Global Findex Database 2025: Connectivity and financial inclusion in the digital economy. World Bank.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy. *Journal of Economic Literature*, 52(1), 5-44.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce. *Information Systems Research*, 13(3), 334-359.

Nussbaum, M. C. (2000). Women and human development: The capabilities approach. Cambridge University Press.

OECD. (2022). OECD/INFE toolkit for measuring financial literacy and inclusion.

OECD. (2025). Supporting informed and safe use of

digital payments through digital financial literacy.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329-340.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D. et al. (2021), The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *The BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>

Putnam, R. D. (1993). Making democracy work: Civic traditions in modern Italy. Princeton University Press.

Putnam, R. D. (2000). Bowling alone: The collapse and revival of the American community. Simon & Schuster.

Ragnedda, M. (2018). Conceptualizing digital capital. *Telematics and Informatics*, 35(8), 2366-2375.

Ragnedda, M., & Ruii, M. L. (2020). Digital capital: A Bourdieusian perspective on the digital divide. Emerald Publishing.

Sahay, R., von Allmen, U., Lahreche, A., Khera, P., Ogawa, S., Bazarbash, M., & Beaton, K. (2020). The promise of fintech: Financial inclusion in the post-COVID-19 era. International Monetary Fund.

Sarma, M. (2008). Index of financial inclusion. Indian Council for Research on International Economic Relations Working Paper No. 215.

Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1-17.

Sen, A. (1985). Commodities and capabilities. North-Holland.

Sen, A. (1999). Development as freedom. Oxford University Press.

Tandilino, C., Pontoh, G. T., Darmawati, D. & Indrijawati, A. (2025). Digital financial inclusion as a mediator of digital financial literacy and government

support in MSME performance. *International Journal of Financial Studies*, 13(4), 199.

Van Dijk, J. (2005). *The deepening divide: Inequality in the information society*. Sage.

Van Dijk, J. (2020). *The digital divide*. Polity Press.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.

World Bank. (2022). *The little data book on financial inclusion 2022*. World Bank.

World Bank. (2025). *The Global Findex Database 2025: Connectivity and financial inclusion in the digital economy*. World Bank.

World Bank & Global Partnership for Financial

Inclusion (GPFI). (2024). *Digital public infrastructure: Applications for accelerating financial inclusion and productivity*. World Bank.

Reserve Bank of India. (2021). *National strategy for financial inclusion (2019-2024)*. RBI.

Reserve Bank of India. (2022). *Payments Vision 2025*.

Reserve Bank of India. (2023). *Report on trends and progress of banking in India 2022-23*. RBI.

Reserve Bank of India. (2024). *Annual report 2023-24*. RBI.

Reserve Bank of India. (2024). *Report on currency and finance*. RBI.



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GAPS IN FINANCIAL INCLUSION IN SOUTH ASIA: AN ANALYSIS

 Dr. Tanushree Mazumdar*

Abstract

Financial inclusion is both an enabler as well as an effect of economic development of a country. Therefore, policymakers in developing countries are working towards increasing financial inclusion in their countries. South Asia is no different. Financial literacy followed by providing financial services is important for financial inclusion but unless these lead to increased usage of these financial services, financial inclusion is incomplete and meaningless. The study, therefore, does a gap analysis between access and usage of financial services in selected countries of South Asia and finds that even countries like India and Sri Lanka, who have done impressively when it comes to providing access to financial services fall short when it comes to the usage of these services by their citizens. The reasons range from lack of adequate digital spread of financial services to low income, unemployment, among others with all the countries showing similarities in some respects and dissimilarities in others.

Keywords

Financial inclusion, South Asia, Digitisation, Access, Usage

Introduction

Financial inclusion is defined as the delivery of banking services be it savings, credit, insurance, etc. at affordable prices to the disadvantaged sections of the society. Financial inclusion is being championed by all developing countries as it is one of the enablers of development. Several emerging and developing countries have committed on various fora to make financial inclusion a mission for them as they understand its importance in taking their countries to the next stage of development. Countries in South Asia have also made similar commitments be it in the Maya Declaration, the G-20 or the World Bank. South

Asian countries as a regional bloc share several characteristics be it geographical, historical, cultural which makes it amenable to study as a bloc (Kaur, 2018). They are also close to each other on the Human Development Index ranking, making a comparative study reasonable and logical. There could also be scope for peer learning if any of the countries have done better than the others with respect to any of the dimensions of financial inclusion. The importance of financial inclusion for the select South Asian countries cannot be overstated because all the countries belong to middle-income countries with some like Sri Lanka and India on the verge of transitioning to high income countries. Given its close link with economic growth,

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greater financial inclusion can propel these countries to the high income bracket much faster.

Literature Review

There is a close linkage between financial inclusion and economic growth and development (Dua et al., 2025). Financial inclusion in terms of number of bank branches and number of ATMs per 100,000 adults as well as increase in access to bank credit is known to have had a positive impact on economic development, as measured by their performance in the Human Development Index, in countries of Asia (Van & Lihn, 2019).

There are three aspects to financial inclusion: access, usage and quality. Access to financial services can be looked at a supply-side phenomenon, whereas usage, a demand-side. Quality refers to efforts taken to create awareness about financial services and removing barriers to using financial services. Our paper focuses on the gap between access and usage i.e. the gap between demand and supply. The gap between the two can often explain the reasons for limited financial inclusion in a country. The gap also gives a clue in terms of which of the sub-variables within access or usage must be targeted to close the gap. Access to financial services, beginning with the ownership of a bank account, is a primary requirement of financial inclusion. As per the Global Findex Report of 2025, 79 per cent of adults aged 15 and above had access to a bank account, a significant improvement over 2021, when it was 74 per cent. Mobile connectivity is significant access variable because the growth of the mobile ecosystem is known to be accelerating financial inclusion in South Asia (Kabir, 2022).

Given that supply side factors i.e. access to financial services is an important pre-requisite of financial inclusion, what are the determinants of access to financial services. Various studies (Dua et al., 2025, Van & Lihn, 2019, Valera et al., 2025) have shown that age, income, educational attainment, being

employed and mobile phone ownership are important determinants of access to financial inclusion. If person is educated, male, older in age (between 30 and 45 years) and with a regular job, he has a higher chance of having access to financial services in South Asia (Badar et al., 2020), with income from a regular job being the primary determinant. The study reiterates the role of ownership of a mobile phone with connectivity being linked with higher rates of financial inclusion in Bangladesh, India and Pakistan.

Literature has documented the salubrious role of internal conflict settlement on financial inclusion. These conflicts have hampered financial inclusion in the countries and their resolution is known to have increased financial inclusion (Murshed et al., 2023).

Valera et al. (2025) studied the factors affecting access to financial services in Southeast Asia. While most of the factors remain constant such as income, educational attainment, ownership of mobile phones, etc. additional factors which affect access is age. Individuals, in the age group of 25-35 years, having higher likelihood of owning a formal bank account. Other factors mentioned are costs of opening a bank account, proximity of a bank, lack of trust in financial institutions and individual's ability to complete documentation formalities.

In the middle-income countries, it is found that age, tertiary education and employment are the factors which determine formal financial inclusion as against gender, secondary education and income in low-income countries and only income in high-income countries (Khanh, 2018). Gender is not found to play an important role in determining financial inclusion in the middle-income countries, in contrast to countries in South Asia where gender plays an important role in determining who has access to finance (Dua et al., 2025).

While all studies underline the importance of age,

gender, educational attainment, employment as important variables affecting financial inclusion, emerging studies are noting the role of internet and mobile connectivity in increasing financial inclusion in developing countries (Damayanthi, 2022). Thus, efforts towards greater financial inclusion in South Asia has to include increase in digital finance.

During the literature review, the author found that limited attention paid to access-usage gap analysis for South Asia. Therefore, this study fills that gap by doing a access-usage gap analysis for select South Asian countries post-COVID. Moreover, while inter-country comparison among some South Asian countries have been done, no study has done a benchmarking with the middle-income countries to know how much South Asia has achieved or yet to achieve with respect to their peers in the middle income countries group. This paper also fills that research gap.

Objectives

The objectives of the study are to look at the progress of financial inclusion both from the access and usage aspects in South Asia as per the latest data as well as an inter-country comparative analysis within South Asia to find the similarities and differences among the various countries and what each can learn from the other. The countries were chosen based on data availability. Another objective of the study is to benchmark the progress of the South Asian countries against that of the Lower-Middle Income countries (defined by the World Bank as those countries with per capita income ranging between \$1,146 and \$4,515). The comparison with lower-middle income countries is done for both the access and usage variables. Of the countries in South Asia being analysed for the study, Nepal and Pakistan had almost similar per capita incomes in 2024 at \$1,340 and \$1,560, respectively. Bangladesh and India were in the similar bracket at \$2,820 and \$2,390, respectively and Sri Lanka having

the highest per capita income in the region at \$3,610 almost bordering on Upper Middle Income country classification.

Data and Methodology

The analysis of cross-sectional data for the year 2024 for the countries in South Asia is done using descriptive data analysis approach which essentially uses data in its raw form for comparison and visual data charting in the form of graphs to draw inferences. As the data on financial inclusion of various countries is available with very lower frequency and lack of uniformity, the descriptive data analysis approach found to be more feasible rather than statistical analysis. The latest data has been used to analyse financial inclusion in South Asia as given in the The Little Data Book on Financial Inclusion 2025, Global Findex Database, 2025 and Human Development Report, 2025. The focus of the study being cross-sectional analysis in the post-COVID period with the latest data, no time series data of more years have been taken.

Discussion

Financial Inclusion: Access in South Asia

The countries from South Asia chosen for the study because of the availability of data in the Global Findex Database, 2025. The region was chosen because the constituent countries are very close to each other in terms of various economic and development indicators (Table 1). Despite belonging to the lower-middle income group of countries, among the South Asian countries, Sri Lanka stands out as an outlier in its Human Development Index (HDI) rank (with HDI rank 89) as well as per capita income (\$3,610), standing much taller than its counterparts in South Asia, thanks to the various developmental policies adopted by the country. India, on the other hand, stands out in terms of access to financial services thanks to concerted efforts by the country in the last 20 years to increase financial inclusion of its population. For instance, opening of no-frills bank

account with zero or very low minimum balance, streamlined and simplified Know Your Customer (KYC) requirements for people in low-income households to open their bank accounts, employed business correspondents to provide basic financial services, are some of the initiatives taken by India to provide greater financial access to its people. The various schemes such as the Pradhan Mantri Jan Dhan Yojana which included a debit card along with a bank account to all low-income account openers, insurance availability through the Pradhan Mantri Suraksha Bima Yojana, Atal Pension Yojana for workers in the unorganised sector, among others,

have helped India achieve impressive financial inclusion metrics for financial access i.e. the supply side.

After India, Sri Lanka has made rapid strides in achieving financial inclusion on the access side (81.2%). Sri Lanka has been able to achieve the impressive numbers because of the drive and initiatives of the Government. Its National Financial Inclusion Strategy (NFIS) aims to provide accessible and affordable financial services to every individual and enterprise through a long-term, comprehensive, standardized and well-coordinated approach.

Table 1: A Snapshot View of the South Asian Countries

Country	HDI Rank (2023)	Gross National Income Per Capita (2024) in \$	Percentage of Adults with Bank Accounts (2024)
Bangladesh	130	2,820	32.9
India	130	2,390	88.7
Nepal	145	1,340	57.5
Pakistan	168	1,560	18.3
Sri Lanka	89	3,610	81.2

Source: Human Development Report, 2025, Global Findex Database, 2025, World Bank Group and The Little Data Book on Financial Inclusion, World Bank, 2025.

If we look at South Asia, India and Sri Lanka compare favourably with the global average in terms of adults having access to bank accounts (Table 2) and both countries have done better than the other lower-middle income countries on most

of the indicators of access to financial services. The other countries of South Asia are laggard on all indicators except mobile connectivity in which Bangladesh and Nepal outperform their other South Asian peers.

Table 2: Access to Financial Services in South Asia (2024) in Percentage

Access Variable (in %)	India	Bangladesh	Pakistan	Nepal	Sri Lanka	Lower-Middle Income countries
Adults with accounts	89	43.3	27.3	60.0	81.7	70.4
Adults with accounts at a bank/financial institution	88.7	32.9	18.3	57.5	81.2	65
Adults with a mobile money account	23.1	20.8	18.4	10.6	3	24.4
Adults with a digitally enabled financial account	31.1	22.8	19.8	17.6	34.4	36.8
Women with accounts	89.2	33.3	11.9	59.8	80.2	67.6
Adults in the poorest 40% of households with a financial account	86.3	35.5	13.6	53.0	80.2	63.4
Adults not participating in the labour force with a financial account	85.4	33.5	13.2	55	76.6	59.9

Rural adults with a financial account	89.9	44.5	21.1	59.6	82.8	71.1
Adults with mobile connectivity (having personal mobile phone)	66.5	82.4	62.9	78.4	76.6	75.1
Women having personal mobile phone	54.3	73.7	30.1	46.9	72.3	66.6

Source: *The Little Data Book on Financial Inclusion*, World Bank, 2025.

Note: Adults = age 15+

It is noteworthy that both India and Sri Lanka have done quite well in terms of giving bank accounts to adults in the poorest 40% of the households as well as adults out of labour force (Table 2) because it makes it easier to transfer welfare funds in times of economic distress, thereby keeping people from slipping below the poverty line. Poverty alleviation is one of the objectives as well as effects of financial inclusion in developing countries.

Bangladesh has been focussing on promoting a Digital Bangladesh through increase in uptake of mobile money and other digital money platforms. Thus, Bangladesh fares much better than countries such as India and Sri Lanka when it comes to mobile connectivity and mobile connectivity among women (Table 2). Nepal too has been promoting financial inclusion using technology through its Digital Nepal Framework (2019) which shows up in a good mobile connectivity for the country as well as its women at 76.6 per cent and 72.3 per cent, respectively (Table 2). However, it has a long way to go in providing comprehensive access to financial services to all Nepalese adults. Pakistan fares the poorest among its peers in South Asia with only 27.3 per cent of all adults in Pakistan having a bank account. However, Pakistan has been accelerating financial inclusion through digital means after 2021 through Raast, its first instant payment system launched in 2021. Raast offers free and instant digital payment facility to all its

users both individuals and businesses and is known to have accelerated digital transactions in Pakistan since its launch (Ali. S. & Ali, M., 2025).

However, despite better mobile connectivity, accessibility of mobile accounts is limited in India (66.5%) and Sri Lanka, relative to its peers under study. Notably, India and Sri Lanka exhibit lower levels of mobile money usage and digitally enabled accounts, compared to their lower middle-income counterparts. Therefore, if the South Asian countries want to expedite as well as increase the extent of financial inclusion, they have to work on enhancing the mobile banking ecosystem in their countries as it holds the key to rapid financial inclusion as most people prefer accessing their financial services through their mobile phones rather than internet banking as the latter requires lot more financial literacy as well as other paraphernalia.

Financial Inclusion: Usage in South Asia

As mentioned, there are three aspects of financial inclusion which are important: access or supply of financial services, usage or demand for financial services and quality i.e. awareness about financial services. Merely having a bank account does not financially empower a person unless the account is used for receiving money, making payments, savings, taking a loan, etc. Therefore, we analyse usage of financial services in South Asia.

Table 3: Usage of Financial Services by Adults in 2024

Country	Digital Usage (%)	Saving (formally and informally) (%)	Borrowing formally (%)	Financial Resilience (%)
Bangladesh	33.9	20.4	13.1	35.8
India	48.5	38.6	15.1	30.1

Nepal	28.1	37.4	16.4	51.5
Pakistan	24.6	26.8	8.0	33.2
Sri Lanka	47.3	36	18.4	37.9
Lower-Middle Income Countries	47.3	42.9	14.1	40.6

Source: *The Little Data Book on Financial Inclusion, World Bank, 2025*

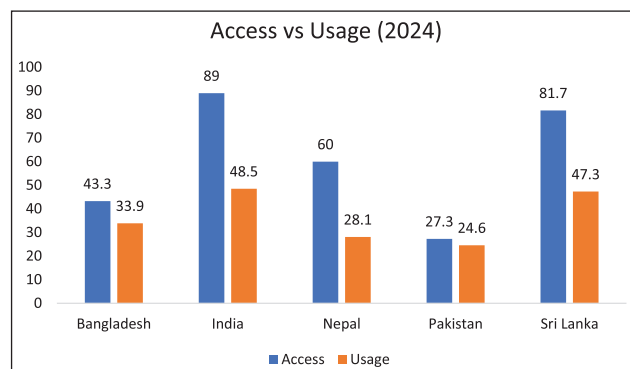
When we look at financial inclusion from the demand side, we find that the usage for all countries in the lower-middle income group is not very high for any of the indicators whether it is making use of the digital mode to receive money or make payment from the account or saving or even financial resilience (Table 3). Also, most of the countries of South Asia perform badly when compared to the lower-middle income countries cohort. When it comes to digital usage of bank accounts, India performs better than its peers in South Asia (with 48.5%). But when it comes to financial resilience (defined as the ability to access extra money in 30 days), India's adults are the least resilient among their South Asian counterparts. Nepalese adults display the highest degree of financial resilience (51.5%). Formal borrowing is quite low when compared to the overall borrowing of the adults (which is more than 60%) in the South Asian countries. Formal borrowing is low even for India and Sri Lanka showing the high dependency of people in these countries on informal sources of borrowing.

Access versus Usage: Gap Analysis

Having looked at the access and usage aspects of financial inclusion, we analyse the gap in the access versus usage i.e. the demand-supply gap in the various countries of South Asia. We use the sub-indicator Digital Usage as a proxy for the usage variable as digital transactions are the most popular form of transactions in low- and middle-income economies (Global Findex Report, 2025) accounting for a large number of transactions in these countries. The Access variable is proxied by percentage of adults with financial accounts. Of the countries, we find the gap to be the lowest in Bangladesh and

Pakistan and the highest in India and Sri Lanka (Figure 1). However, while the low gap in Bangladesh is at a relatively higher level of financial inclusion, the low gap in Pakistan occurs at low levels of financial inclusion showing that Pakistan has a long to go to increase the level of financial inclusion in its country. Nepal has performed quite well in terms of the access variable but needs to shore up on its usage variable. India and Sri Lanka have performed very well when it comes to giving access to financial services. However, they have fallen short in the usage metric. What is the reason for such a gap in these countries?

Figure 1: Access versus Usage Gap in Financial Inclusion



Source: *The Little Data Book on Financial Inclusion, World Bank, 2025*

While Governments and central banks can provide access to financial services, using these accounts, whether it is for savings, borrowing or making a payment, depends on number of factors including but not restricted to income, employment, age, participation in the labour force, etc. Usage is also known to differ as per location, with people in rural areas reporting less usage than in urban areas

(Global Findex Report, 2025). Interestingly, among all regions of the world, South Asia reports the highest number of Government payments (the Government-to-Person (G2P) category) received by people in their accounts. Among the countries of South Asia, in India, Nepal and Sri Lanka, the share of adults receiving G2P payments is reported to have grown by 20 per cent between 2017 and 2024. Most of the payments by Governments, around the world, including South Asia, are now done using digital payment mode. This can also increase the access and usage statistics of financial inclusion in South Asia.

Conclusion

Financial inclusion, while being principally an economic indicator of development, is dependent on number of socio-cultural factors especially in the developing regions of the world such as South Asia, the subject of the analysis of our study. Despite belonging to the same region, there are differences in the level of financial inclusion among the countries with Sri Lanka and India faring much better than Bangladesh, Nepal and Pakistan, especially when it comes to the supply side or access side of financial inclusion because of the deliberate measures taken by the respective Governments and central banks of these countries. More than 80 per cent of adults in both these countries have access to a bank account. Bangladesh and Nepal have been concentrating on providing digital access to financial services, which is the correct strategy to follow as the world is becoming more digital and digitisation is the quickest way to provide as well as use financial services. Pakistan too is focusing on the digital route for financial inclusion but has a lot of catching up to do relative its peers in South Asia.

When it comes to usage of financial services, we find that all these countries have a long way to go including India and Sri Lanka, who otherwise are much ahead of their peers in terms of providing financial access to its adult population. The gap between access to

financial services and their usage, the focus of our study, has shown that the gap remains significant in all the countries in South Asia. While Bangladesh, Nepal and Pakistan must work even more intensively in getting more of its adults financially included, India and Sri Lanka have to work on usage side. Digitisation of financial services can be a way to increase the access and usage of financial services. Another way to close the access-usage gap is to work on the development ladder. People will use their accounts only if they have steady income. This study has implications for policymakers that the per capita income of their population is to be improved and more efforts towards digitisation of financial services can be put in, which is going to be the good enablers for financial inclusion in the region.

Limitations of the Study and Future Scope

The limited availability of high frequency data and lack of uniformity of longitudinal time-series data has restricted the use of analytical tools for the study. And while secondary data can show broad trends and highlight some of the macro level progress of the countries with respect to financial inclusion, the various nuances of each countries can be captured only through field level survey and creates a scope for cross-border collaborative studies in the area of financial inclusion.

References

- Ali S., & Ali M. (2025). From Cash to Digital: Advancing Financial Inclusion in Pakistan.
- Badar, Robina, Anwar Sofia, Naqvi Syed Asif Ali (2020). Financial Inclusion and Determinants in South Asian Countries. *Journal of Finance and Accounting in Emerging Economies*, 6(2), 623-633.
- Damayanthi, N. (2022). Determinants of Financial Inclusion: A Review. *Wayamba Journal of Management*, 13(2), 175-196. 10.4038 / wjm.v13i2.7572.
- Van, D., & Linh, N., (2019). The Impacts of Financial Inclusion on Economic Development: Cases in

Asian-Pacific Countries. *Comparative Economic Research. Central and Eastern Europe*, 22, 7-16. 10.2478/ceer-2019-0001

Dua, P., Goel, D., Kumar N., & Verma, N. (2025). Financial Inclusion in India: Progress, Issues and Policy Options. *RIS Discussion Paper*, 313, 1-49.

Kabir, Humayun Md. (2022). Financial Innovation: Accelerating Financial Inclusion in South Asia. *IGI Global Scientific Publishing*, USA.

Kaur, S. (2018). South Asia as a Political and Economic Region: Present Scenario. *International Journal of Research and Analytical Reviews*, 5(4), 766-769.

Chu, L. (2019). Determinants of Financial Inclusions: Comparing High, Middle, and Low-Income Countries.

Klapper, L., Dorothe S., Laura S., & Alexandra N. (2025). The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy. Washington, DC: World Bank, 75-138. 10.1596/978-1-4648-2204-9.

Murshed, M., Ahmed, R., Al-Tal, R., Kumpamool, C., Vetchagool, W., & Alvarado, R. (2023). Determinants of financial inclusion in South Asia: The moderating and mediating roles of internal conflict settlement. *Research in International Business and Finance*, 64. 10.1016/j.ribaf.2023.101880

Valera, M. L. G., Lei, Z., & Fong, J. H. (2025). Determinants of financial inclusion in Southeast Asia. *Applied Economics*, 57(20), 2533– 2550. 10.1080/00036846.2024.2326529



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वित्तीय साक्षरता और डिजिटल जागरूकता: सशक्त नागरिक, सशक्त भारत

 नौशाबा हसन*

सारांश

वित्तीय साक्षरता और डिजिटल जागरूकता आर्थिक सशक्तीकरण तथा समावेशी विकास के प्रमुख आधार हैं। वित्तीय साक्षरता व्यक्तियों को बचत, निवेश, ऋण, बीमा और डिजिटल वित्तीय सेवाओं के संबंध में सही निर्णय लेने में सक्षम बनाती है, जबकि डिजिटल जागरूकता उन्हें साइबर जोखिमों और वित्तीय धोखाधड़ी से सुरक्षित रहने में सहायता करती है। यह लेख भारतीय अर्थव्यवस्था में वित्तीय साक्षरता की भूमिका, वित्तीय समावेशन, उपभोक्ता संरक्षण, स्टार्टअप, एमएसएमई, कृषि तथा स्वयं सहायता समूहों के विकास में इसके योगदान का विश्लेषण करता है। साथ ही, डिजिटल वित्तीय जोखिमों, साइबर सुरक्षा और उपभोक्ता अधिकारों के महत्व को रेखांकित करता है। लेख में वित्तीय साक्षरता के व्यापक प्रसार हेतु कुछ व्यावहारिक सुझाव भी प्रस्तुत किए गए हैं। वित्तीय रूप से साक्षर और डिजिटल रूप से जागरूक नागरिक ही विकसित, समावेशी और आत्मनिर्भर भारत की वास्तविक शक्ति हैं।

मुख्य शब्द

वित्तीय साक्षरता, डिजिटल जागरूकता, वित्तीय समावेशन, साइबर सुरक्षा, उपभोक्ता संरक्षण

प्रस्तावना

वैश्विक स्तर पर वित्तीय साक्षरता को आर्थिक सशक्तीकरण की आधारशिला माना जाता है, क्योंकि यह व्यक्ति को सही वित्तीय निर्णय लेने और अपने आर्थिक हितों की सुरक्षा करने में सक्षम बनाती है। वित्तीय साक्षरता लोगों को सुरक्षित वित्तीय व्यवहार अपनाने के लिए जागरूक करती है और बैंकिंग एवं डिजिटल प्रणालियों के प्रति उनके भरोसे को सुदृढ़ करती है, जिससे मजबूत और समावेशी आर्थिक भविष्य की दिशा तय होती है। आर्थिक सहयोग और विकास संगठन (OECD) ने वित्तीय साक्षरता को निम्नानुसार परिभाषित किया है:

वित्तीय साक्षरता एक ऐसी प्रक्रिया है जिसके द्वारा वित्तीय

उपभोक्ता/निवेशक, वित्तीय उत्पादों तथा जोखिमों की अपनी समझ को विकसित करते हैं तथा सूचना, अनुदेश और/अथवा वस्तुनिष्ठ परामर्श के जरिये वित्तीय जोखिमों और अवसरों के प्रति अधिक जागरूक बनते हैं, समझ-बूझ से सही वित्तीय निर्णय ले पाते हैं, सहायता के लिए कहां और किसके पास जाना चाहिए, इसकी जानकारी प्राप्त करते हैं तथा अपनी वित्तीय स्थिति में सुधार लाने के लिए अन्य कारगर उपाय अपनाने के लिए प्रवृत्त होते हैं।

सरल शब्दों में कहें तो वित्तीय साक्षरता, वह, जागरूकता, ज्ञान, दृष्टिकोण, व्यवहार और कौशल है जो वित्तीय उपकरणों को समझने तथा उनका उपयोग करने हेतु आवश्यक है, ताकि सुविचारित वित्तीय निर्णय लिए जा सकें और व्यक्तिगत

*सहायक महाप्रबन्धक व संकाय, भारतीय स्टेट बैंक।

वित्तीय कल्याण प्राप्त किया जा सके।

भारत की अर्थव्यवस्था को स्थिर और सशक्त बनाने में वित्तीय समावेशन, वित्तीय साक्षरता और उपभोक्ता संरक्षण की भूमिका अत्यंत महत्वपूर्ण है। ये तीनों तत्व परस्पर गहराई से जुड़े हुए हैं और मिलकर एक ऐसी वित्तीय व्यवस्था का निर्माण करते हैं, जो जागरूकता, सुरक्षा और व्यापक भागीदारी को बढ़ावा देती है।

- **वित्तीय समावेशन** अर्थव्यवस्था के आपूर्ति पक्ष को सुदृढ़ बनाता है और बैंकिंग तथा अन्य वित्तीय सेवाओं को जनता तक पहुँचाने का कार्य करता है।
- **वित्तीय साक्षरता** मांग पक्ष को सक्षम बनाती है और लोगों को यह बोध कराती है कि वे कौन सी सेवाएँ प्राप्त कर सकते हैं तथा उनका उपयोग किस प्रकार किया जा सकता है।
- **वित्तीय स्थिरता** के संदर्भ में उपभोक्ता संरक्षण का लक्ष्य यह सुनिश्चित करना है कि नागरिकों को सुरक्षित, पारदर्शी और निष्पक्ष वित्तीय सेवाएँ उपलब्ध हों, जिससे वे वित्तीय धोखाधड़ी एवं अनुचित प्रथाओं से सुरक्षित रह सकें।

आलेख का उद्देश्य

इस आलेख का उद्देश्य वित्तीय साक्षरता एवं डिजिटल जागरूकता की भूमिका का समग्र विश्लेषण करना है तथा यह स्पष्ट करना है कि ये दोनों वित्तीय समावेशन, उपभोक्ता संरक्षण, आर्थिक सशक्तीकरण, स्टार्टअप, एमएसएमई, कृषि तथा स्वयं सहायता समूहों के विकास में किस प्रकार योगदान देते हैं। साथ ही, डिजिटल वित्तीय जोखिमों एवं साइबर सुरक्षा के प्रति जागरूकता के महत्व का मूल्यांकन करना तथा वित्तीय साक्षरता के व्यापक प्रसार के लिए व्यावहारिक एवं प्रभावी सुझाव प्रस्तुत करना भी इस आलेख का प्रमुख उद्देश्य है।

इस आलेख के विश्लेषण हेतु विभिन्न राष्ट्रीय एवं अंतरराष्ट्रीय संस्थाओं की रिपोर्टें, सरकारी प्रकाशनों तथा आधिकारिक प्रेस विज्ञप्तियों का उपयोग किया गया है। इनमें आर्थिक सहयोग और विकास संगठन (OECD) तथा विश्व आर्थिक मंच (WEF) की वित्तीय साक्षरता संबंधी सामग्री, भारतीय रिज़र्व बैंक की वित्तीय समावेशन हेतु राष्ट्रीय कार्यनीति (NSFI, 2025-30) एवं वित्तीय समावेशन सूचकांक (FI-Index) संबंधी प्रकाशन, भारत सरकार के प्रेस सूचना ब्यूरो (PIB) की आधिकारिक प्रेस विज्ञप्तियाँ, भारत सरकार के सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय की वार्षिक रिपोर्ट 2025-26, आर्थिक सर्वेक्षण 2025-26, राष्ट्रीय अपराध रिकॉर्ड ब्यूरो (NCRB) 'क्राइम इन इंडिया - 2024' रिपोर्ट तथा स्टार्टअप एवं वित्तीय समावेशन आदि से संबंधित विश्वसनीय स्रोतों का अध्ययन एवं विश्लेषण किया गया है। इन स्रोतों के आधार पर आलेख में प्रस्तुत तथ्यों, आँकड़ों एवं निष्कर्षों का प्रतिपादन किया गया है।

भारतीय अर्थव्यवस्था में वित्तीय साक्षरता का महत्व

वित्तीय समावेशन के क्षेत्र में भारत ने पिछले कुछ वर्षों में उल्लेखनीय प्रगति की है। भारतीय रिज़र्व बैंक द्वारा जारी एफआई-सूचकांक वर्ष 2019 के 49.9 से बढ़कर वर्ष 2026 में 70 हो गया है। हालांकि, वित्तीय साक्षरता के स्तर को लेकर स्थिति अभी भी चिंताजनक है। विश्व आर्थिक मंच (World Economic Forum) के अनुसार, हमारे देश में 27% वयस्क ही वित्तीय रूप से साक्षर हैं, जो उन्नत अर्थव्यवस्थाओं के औसत 52% की तुलना में काफी कम है। अर्ध-शहरी और ग्रामीण क्षेत्रों में तो स्थिति और भी चुनौतीपूर्ण है, जहाँ लोगों को बैंकिंग और अन्य औपचारिक वित्तीय संस्थाओं के बारे में या तो जानकारी नहीं होती या बहुत सीमित जानकारी होती है। इसी अभाव के कारण वे अनौपचारिक स्रोतों से ऊँची ब्याज दर पर ऋण लेने को

विवश हो जाते हैं, शोषण का शिकार होते हैं और देश की आर्थिक मुख्यधारा से अलग-थलग रह जाते हैं। किसी भी राष्ट्र की समावेशी आर्थिक वृद्धि तभी संभव है जब वहाँ का हर नागरिक बचत, उधार, भुगतान, निवेश, बीमा और पेंशन जैसे विषयों के बारे में स्पष्ट जानकारी रखे और सोच-समझकर वित्तीय व्यवस्था में सहभागिता करे। इस दृष्टि से वित्तीय साक्षरता लोगों को उनके आर्थिक व्यवहार, अधिकारों और जिम्मेदारियों के प्रति जागरूक बनाकर उपभोक्ता संरक्षण को सशक्त करती है।

भारतीय अर्थव्यवस्था को सुदृढ़ बनाने में वित्तीय साक्षरता की भूमिका

- वित्तीय साक्षरता लोगों को वित्तीय जोखिमों तथा आकस्मिक आर्थिक परिस्थितियों से प्रभावी ढंग से निपटने की क्षमता प्रदान करती है। जब लोग बचत, बीमा और आपातकालीन निधि के महत्व को समझते हैं, तो वे अचानक आने वाली परिस्थितियों के लिए बेहतर तैयार रहते हैं। वित्तीय अवधारणाओं की समझ नागरिकों को उनके अधिकारों के प्रति जागरूक करती है, जिससे धोखाधड़ी या गलत वित्तीय उत्पादों की बिक्री की संभावना कम हो जाती है। इन सभी पहलुओं से देश की वित्तीय स्थिरता मजबूत होती है।
- वित्तीय साक्षरता व्यक्ति को उपलब्ध वित्तीय विकल्पों की समझ देती है और उसे अपनी आवश्यकता के अनुसार उपयुक्त उत्पाद चुनने में सक्षम बनाती है। यह उन्हें शिकायतों के समाधान के लिए मौजूद प्रणालियों के प्रति भी जागरूक करती है। वित्तीय समझ रखने वाला व्यक्ति आर्थिक मामलों में अधिक समझदारी और संतुलन के साथ निर्णय ले पाता है। इससे उसकी आर्थिक स्थिति मजबूत होती है और महंगे अनौपचारिक ऋण पर

निर्भरता कम होती है। इसका सकारात्मक प्रभाव आय असमानता में कमी के रूप में दिखता है और कमजोर वर्गों को बेहतर आर्थिक अवसर प्राप्त करने में सहायता मिलती है।

- वर्तमान वैश्विक परिदृश्य में स्टार्टअप और फिनटेक नवाचार, उद्यमिता तथा रोजगार सृजन के महत्वपूर्ण केंद्र बनकर उभरे हैं। 31 मार्च 2026 तक देश में मान्यता प्राप्त स्टार्टअप्स की संख्या 2.23 लाख से अधिक हो चुकी है। इन स्टार्टअप्स ने 23.36 लाख से अधिक प्रत्यक्ष रोजगार के अवसर सृजित किए हैं।¹ ऐसे परिवेश में वित्तीय साक्षरता अत्यंत महत्वपूर्ण हो जाती है, क्योंकि यह स्टार्टअप उद्यमियों को पूंजी जुटाने, जोखिमों का विवेकपूर्ण आकलन करने तथा संसाधनों का संतुलित और प्रभावी उपयोग करने की समझ प्रदान करती है। इस समझ के साथ उनका हर कदम अधिक स्थिर, अधिक दूरदर्शी और अधिक प्रभावी बनता है। यदि नवाचार को सही वित्तीय दिशा मिल जाए, तो वह लाखों लोगों के जीवन में बदलाव ला सकता है। डिजिटल भुगतान, सूक्ष्म ऋण, निवेश प्लेटफॉर्म और कृत्रिम बुद्धिमत्ता आधारित तकनीक जैसे नवाचार तभी सुरक्षित और सफल होते हैं जब उनके पीछे वित्तीय समझ का आधार हो।
- सूक्ष्म, लघु एवं मध्यम उद्यम का भारत के सकल घरेलू उत्पाद (GDP) में 31.1 प्रतिशत, विनिर्माण उत्पादन में लगभग 35 प्रतिशत तथा कुल निर्यात में 48.58 प्रतिशत योगदान है।² ये विशेष रूप से महिलाओं, युवाओं और अनौपचारिक श्रमिकों के लिए गैर-कृषि रोजगार के सबसे बड़े स्रोत हैं, जिससे सामाजिक और आर्थिक समावेशन को बढ़ावा मिलता है। स्थानीय

¹<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2253019®=3&lang=2>
²वार्षिक रिपोर्ट 2025-26, सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय, भारत सरकार।

उद्यमिता और निर्यात प्रतिस्पर्धा के इंजन के रूप में, एमएसएमई अस्थिर वैश्विक अर्थव्यवस्था में भारत की आर्थिक मजबूती को बढ़ाते हैं। अतएव, इस क्षेत्र को समर्थन प्रदान करना न केवल एक आर्थिक आवश्यकता है, बल्कि समावेशी और आत्मनिर्भर राष्ट्रीय विकास का एक रणनीतिक मार्ग भी है। कृषि के बाद यह क्षेत्र सबसे अधिक रोजगार देने वाला बड़ा क्षेत्र बन चुका है। इस क्षेत्र को सशक्त बनाने के लिए अनेक पहलें की गई हैं, परंतु इन पहलों का वास्तविक लाभ तभी मिल सकता है जब उद्यमी वित्तीय रूप से साक्षर हों। वित्तीय साक्षरता उद्यमियों को नकदी प्रवाह को संतुलित रखने, निवेश की योजना बनाने और ऋण का विवेकपूर्ण उपयोग करने की क्षमता प्रदान करती है।

- आर्थिक सर्वेक्षण 2025-26 के अनुसार कृषि एवं संबद्ध गतिविधियाँ भारत की राष्ट्रीय आय में वर्तमान मूल्यों पर लगभग 20% योगदान करती हैं, जबकि देश की कुल कार्यबल का 46.1% इसी क्षेत्र में कार्यरत है। ऐसे महत्वपूर्ण क्षेत्र में वित्तीय साक्षरता अत्यावश्यक हो जाती है, क्योंकि इससे किसानों को ऋण, बीमा, फसल सुरक्षा और डिजिटल भुगतान जैसी सेवाओं का सही, सुरक्षित और प्रभावी उपयोग करना समझ आता है। वित्तीय समझ उन्हें शोषणकारी अनौपचारिक ऋण के जाल से बचाती है तथा उनकी आय, सुरक्षा और आर्थिक स्थिरता को मजबूत आधार प्रदान करती है।
- स्वयं सहायता समूह ग्रामीण और अर्ध-शहरी क्षेत्रों की महिलाओं तथा छोटे उद्यमियों को संगठित कर बचत, आंतरिक ऋण और सामूहिक वित्तीय निर्णयों की संस्कृति विकसित करते हैं। जब इनके सदस्यों को वित्तीय साक्षरता प्राप्त होती है, तो वे औपचारिक बैंकिंग से सुगमता से जुड़ पाते हैं, सरकारी योजनाओं का लाभ

लेते हैं और अपने छोटे उद्यमों को अधिक आत्मनिर्भरता के साथ आगे बढ़ाते हैं। इससे स्थानीय अर्थव्यवस्था में पूंजी का प्रवाह बढ़ता है और आसपास के समुदायों में रोजगार के नए अवसर भी सृजित होते हैं।

वित्तीय समावेशन पर भारत सरकार की प्रमुख पहलें

भारत सरकार ने पिछले एक दशक में वित्तीय समावेशन को राष्ट्रीय प्राथमिकता बनाकर देश के हर वर्ग को बैंकिंग, बीमा, पेंशन और ऋण जैसी बुनियादी वित्तीय सेवाओं से जोड़ा है। इसी दिशा में सरकार की कुछ प्रमुख पहलें इस प्रकार हैं:

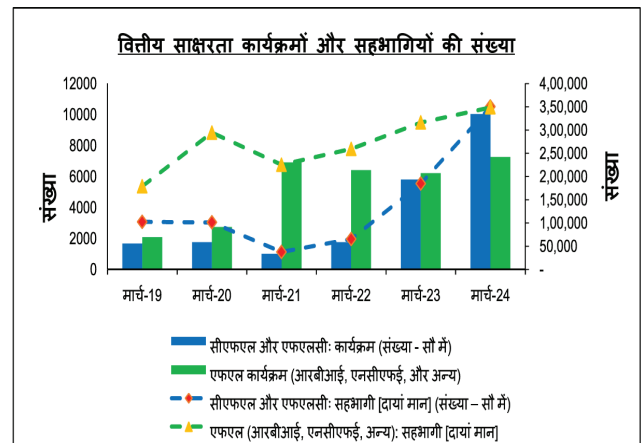
- प्रधानमंत्री जन धन योजना (PMJDY): इस योजना के तहत शून्य-बैलेंस बचत खाता, दुर्घटना बीमा वाला मुफ्त रुपे (RuPay) डेबिट कार्ड और ₹10,000 तक की ओवरड्राफ्ट सुविधा दी जाती है। 25 फरवरी 2026 तक 57.78 करोड़ जन-धन खाते खोले जा चुके हैं, जिनमें ₹2.94 लाख करोड़ जमा हैं। इनमें से 56% खाते महिलाओं के नाम हैं।
- बीमा योजनाएँ: प्रधानमंत्री जीवन ज्योति बीमा योजना (PMJJBY) एक जीवन बीमा योजना है, जिसे सरकार ने मई 2015 में शुरू किया था। 29 अप्रैल, 2026 तक इसके तहत 27.43 करोड़ से अधिक नामांकन हो चुके हैं और ₹21,512.50 करोड़ का भुगतान किया जा चुका है।
- प्रधानमंत्री सुरक्षा बीमा योजना (PMSBY) एक दुर्घटना बीमा योजना है। 29 अप्रैल, 2026 तक 58.09 करोड़ से अधिक नामांकन हो चुके हैं और 1,84,662 दावों के लिए ₹3,667.52 करोड़ का भुगतान किया गया है।
- पेंशन योजना: अटल पेंशन योजना (APY) असंगठित क्षेत्र के श्रमिकों को पेंशन सुरक्षा प्रदान करती है। 30

अप्रैल, 2026 तक इसमें 9.04 करोड़ से अधिक लोग नामांकित हो चुके हैं।

- ऋण सुविधा: प्रधानमंत्री मुद्रा योजना (PMMY) छोटे व्यवसायों को बिना गारंटी के ऋण उपलब्ध कराती है। अब तक इसके तहत 57.79 करोड़ ऋणों के माध्यम से ₹40.07 लाख करोड़ वितरित किए जा चुके हैं, जिससे छोटे और सूक्ष्म उद्यमों की ऋण व्यवस्था मजबूत हुई है।
- प्रगति का मापन: RBI का वित्तीय समावेशन सूचकांक (FI-Index), यह सूचकांक बैंकिंग सेवाओं तक पहुँच, उपयोग और गुणवत्ता में प्रगति को मापता है। मार्च 2026 में यह सूचकांक बढ़कर 70.0 हो गया है, जो देश में वित्तीय समावेशन में निरंतर सुधार को दर्शाता है।

वित्तीय समावेशन हेतु राष्ट्रीय कार्यनीति (एनएसएफआई) 2025-30: देश में वित्तीय समावेशन को अधिक व्यापक और प्रभावी बनाने के उद्देश्य से भारतीय रिज़र्व बैंक ने दिसंबर 2025 में 'वित्तीय समावेशन हेतु राष्ट्रीय कार्यनीति (एनएसएफआई) 2025-30' जारी की। इसमें 'पंच ज्योति' के अंतर्गत पाँच प्रमुख रणनीतिक उद्देश्यों तथा 47 कार्रवाई बिंदुओं को शामिल किया गया है। इनमें सुलभ वित्तीय सेवाओं का विस्तार, महिलाओं की भागीदारी को बढ़ावा, कौशल आधारित आजीविका, वित्तीय अनुशासन तथा प्रभावी शिकायत निवारण तंत्र को सुदृढ़ करने पर विशेष बल दिया गया है। संयुक्त राष्ट्र के सतत् विकास 2030 एजेंडा के अनुरूप तैयार इस कार्यनीति में वित्तीय साक्षरता को वित्तीय समावेशन का एक महत्वपूर्ण आधार माना गया है। कार्यनीति के अनुसार, वर्ष 2019 से 2024 के दौरान सेंटर फॉर फाइनेंशियल लिटरसी (सीएफएल) एवं फाइनेंशियल लिटरसी सेंटर (एफएलस) के माध्यम से आयोजित वित्तीय साक्षरता कार्यक्रमों की संख्या और उनकी पहुंच में उल्लेखनीय वृद्धि

दर्ज की गई, जिसे नीचे दिए गए चित्र में स्पष्ट रूप से देखा जा सकता है:



डिजिटल वित्तीय साक्षरता

आज के तकनीकी दौर में डिजिटल साधनों को अपनाना, उनके प्रति जागरूक होना और उनका सही उपयोग जानना कोई विकल्प नहीं, बल्कि अनिवार्यता बन चुका है। डिजिटल साक्षरता वह आवश्यक कौशल है, जो व्यक्ति को आधुनिक तकनीकी साधनों के साथ दक्षता और सजगता से कार्य करने योग्य बनाता है। इसके अंतर्गत मोबाइल, कंप्यूटर और इंटरनेट जैसे माध्यमों का सही उपयोग, डिजिटल भुगतान प्रणालियों की समझ तथा ऑनलाइन सेवाओं का सुरक्षित संचालन शामिल होता है। डिजिटल रूप से साक्षर व्यक्ति न केवल डिजिटल मंचों पर सहजता से कार्य करता है, बल्कि वह साइबर धोखाधड़ी, फर्जी लिंक और अनाधिकृत लेनदेन जैसे जोखिमों से स्वयं को सुरक्षित रखने में भी सक्षम होता है। आज के बदलते परिवेश में यह साक्षरता केवल सुविधा का साधन नहीं, बल्कि एक आवश्यक जीवन कौशल बन चुकी है, जो व्यक्ति को आत्मनिर्भर और सशक्त बनाती है। साइबर सुरक्षा जोखिमों के प्रबंधन के लिए डिजिटल साक्षरता का व्यापक प्रसार आज नीतिगत आवश्यकता बन गया है। डिजिटल साक्षरता एक बहुआयामी अवधारणा है, जिसमें

निम्नलिखित प्रमुख आयाम सम्मिलित होते हैं:

डिजिटल सेवाओं एवं उत्पादों के बारे में जानकारी: सही जानकारी डिजिटल वित्तीय साक्षरता का मूल आधार है, जिसके अंतर्गत ग्राहकों को इंटरनेट बैंकिंग, मोबाइल बैंकिंग, यूपीआई, डेबिट कार्ड, प्रीपेड इंस्ट्रूमेंट और अन्य डिजिटल सेवाओं के बारे में स्पष्ट, सरल और व्यावहारिक जानकारी दी जाती है। जब ग्राहकों को इन सेवाओं के कार्य करने का तरीका, उनके लाभ, सीमाएं और उपयोग की शर्तें समझ में आती हैं, तब वे अधिक आत्मविश्वास के साथ डिजिटल लेनदेन कर पाते हैं। उदाहरण के रूप में, यूपीआई ने छोटे और बड़े दोनों प्रकार के भुगतानों को तुरंत और सहज बना दिया है, जिससे नकद पर निर्भरता कम हुई है और पारदर्शिता बढ़ी है। ग्राहकों को यह भी जानकारी दी जानी चाहिए कि वे आधिकारिक ऐप्स और विश्वसनीय प्लेटफॉर्म का ही उपयोग करें, ताकि वे फर्जी लिंक, साइबर धोखाधड़ी और अनधिकृत लेनदेन से सुरक्षित रह सकें।

डिजिटल वित्तीय जोखिमों के बारे में जागरूकता: डिजिटल माध्यमों के बढ़ते उपयोग के साथ जोखिम भी तेजी से बढ़े हैं, इसलिए ग्राहकों का इन खतरों के प्रति जागरूक होना अत्यंत आवश्यक है। फिशिंग कॉल, फर्जी वेबसाइट, संदिग्ध लिंक, मैलवेयर, हैकिंग, एटीएम स्कimming और सोशल इंजीनियरिंग जैसे साइबर अपराध आम हो गए हैं। मई 2026 में राष्ट्रीय अपराध रिकॉर्ड ब्यूरो (NCRB) ने 'क्राइम इन इंडिया - 2024' रिपोर्ट जारी की है। रिपोर्ट के अनुसार देश में साइबर अपराधों में वर्ष 2023 की तुलना में लगभग 17% की वृद्धि दर्ज की गई। यह आँकड़ा दर्शाता है कि अपराध अब पारंपरिक तरीकों से निकलकर तेजी से डिजिटल माध्यमों की ओर बढ़ रहे हैं। वर्ष 2024 में 'डिजिटल अरेस्ट' धोखाधड़ी के मामले विशेष रूप से बढ़े, जिनमें ठग स्वयं को सीबीआई, कस्टम या पुलिस अधिकारी

बताकर वीडियो कॉल पर लोगों को गिरफ्तारी का डर दिखाते हैं और उनसे पैसे ठग लेते हैं। ग्राहकों को स्पष्ट रूप से जागरूक किया जाना चाहिए कि कोई भी बैंक अथवा अधिकृत संस्था कभी भी ओटीपी, पासवर्ड, पिन या कार्ड संबंधी जानकारी साझा करने के लिए नहीं कहती। साथ ही, कोई भी सरकारी या अधिकृत एजेंसी फोन पर गिरफ्तारी, जेल या कानूनी कार्रवाई का भय दिखाकर किसी खाते में धनराशि जमा कराने के निर्देश नहीं देती। यह जागरूकता, ग्राहकों को समय रहते खतरे की पहचान करने, साइबर धोखाधड़ी से बचने और अपनी वित्तीय जानकारी को सुरक्षित रखने में सक्षम बनाती है।

डिजिटल वित्तीय जोखिम प्रबंधन: जोखिमों की जानकारी के साथ उनका प्रभावी प्रबंधन भी उतना ही आवश्यक है। ग्राहकों को सुरक्षित डिजिटल व्यवहार अपनाने के लिए प्रेरित किया जाना चाहिए, जैसे प्रत्येक साइट या एप के लिए मजबूत एवं अलग-अलग पासवर्ड रखना, समय-समय पर पासवर्ड बदलना, दो-स्तरीय प्रमाणीकरण का उपयोग करना तथा केवल सुरक्षित नेटवर्क का ही प्रयोग करना आदि। ग्राहकों को यदि किसी भी प्रकार की संदिग्ध गतिविधि, अनधिकृत लेनदेन या असामान्य संदेश दिखाई दे, तो उन्हें इसकी सूचना बिना किसी विलंब के संबंधित बैंक को देनी चाहिए, ताकि समय रहते आवश्यक कार्रवाई कर वित्तीय हानि को रोका जा सके। इस प्रकार के सावधानीपूर्ण एवं सतर्क डिजिटल व्यवहार को अपनाकर ग्राहक डिजिटल बैंकिंग सेवाओं का सुरक्षित उपयोग कर सकते हैं तथा अपने वित्तीय संसाधनों एवं व्यक्तिगत जानकारी को संभावित साइबर जोखिमों से सुरक्षित रख सकते हैं।

उपभोक्ता अधिकारों व निवारक प्रक्रियाओं का ज्ञान: ग्राहकों को अपने अधिकारों और शिकायत निवारण प्रणाली की जानकारी होना भी अत्यंत महत्वपूर्ण है, ताकि किसी भी

समस्या की स्थिति में वे सही कदम उठा सकें। अनधिकृत इलेक्ट्रॉनिक लेनदेन के मामलों में भारतीय रिज़र्व बैंक ने ग्राहकों की देयता को सीमित करने के लिए स्पष्ट दिशा-निर्देश जारी किए हैं, जिनमें समय पर सूचना देने पर शून्य देयता जैसे प्रावधान शामिल हैं। इसके अतिरिक्त, ग्राहकों को यह जानकारी होनी चाहिए कि वे अपने बैंक में शिकायत दर्ज कर सकते हैं और यदि समाधान संतोषजनक न हो, तो बैंकिंग लोकपाल के पास भी जा सकते हैं। शिकायत दर्ज करने की समयसीमा, आवश्यक दस्तावेज और प्रक्रिया की समझ ग्राहकों को अधिक सशक्त बनाती है और उन्हें अपने अधिकारों की रक्षा करने में सक्षम बनाती है।

भारत में वित्तीय और डिजिटल साक्षरता की राह में आने वाली प्रमुख चुनौतियाँ

भारत में वित्तीय एवं डिजिटल साक्षरता का समान रूप से प्रसार अभी भी एक बड़ी चुनौती है। सामाजिक, आर्थिक, तकनीकी और संस्थागत बाधाओं के कारण समाज का एक बड़ा वर्ग आधुनिक वित्तीय एवं डिजिटल सेवाओं का प्रभावी उपयोग नहीं कर पा रहा है। इस दिशा में प्रमुख चुनौतियाँ निम्नलिखित हैं:

• सामाजिक-आर्थिक बाधाएँ

गरीबी, कम आय और आर्थिक असमानता के कारण अनेक परिवार वित्तीय एवं डिजिटल शिक्षा से वंचित रह जाते हैं। दैनिक आवश्यकताओं की पूर्ति उनकी प्राथमिकता होने से बचत, निवेश, बीमा, डिजिटल भुगतान तथा ऑनलाइन बैंकिंग जैसी वित्तीय अवधारणाओं के प्रति उनकी समझ सीमित रह जाती है।

• डिजिटल अवसंरचना की कमी

ग्रामीण एवं दूरदराज के क्षेत्रों में स्मार्टफोन, इंटरनेट कनेक्टिविटी, बिजली तथा अन्य डिजिटल सुविधाओं का

अभाव वित्तीय एवं डिजिटल सेवाओं तक पहुँच को सीमित करता है। इससे डिजिटल साक्षरता के प्रसार और डिजिटल वित्तीय सेवाओं के उपयोग में बाधा उत्पन्न होती है।

• लैंगिक डिजिटल असमानता

सामाजिक एवं सांस्कृतिक कारणों से महिलाओं की डिजिटल उपकरणों, इंटरनेट तथा औपचारिक वित्तीय सेवाओं तक पहुँच पुरुषों की तुलना में कम है। सीमित वित्तीय जागरूकता और डिजिटल कौशल के कारण वे डिजिटल भुगतान, ऑनलाइन बैंकिंग तथा अन्य डिजिटल वित्तीय सेवाओं का प्रभावी उपयोग नहीं कर पाती हैं, जिससे वित्तीय एवं डिजिटल साक्षरता का अंतर बना रहता है।

• नकद लेनदेन पर निर्भरता

भारत की अर्थव्यवस्था का एक बड़ा हिस्सा असंगठित क्षेत्र पर आधारित है, जहाँ अधिकांश लेनदेन अब भी नकद माध्यम से होते हैं। नकद भुगतान को अधिक सरल और विश्वसनीय मानने की प्रवृत्ति के कारण लोग डिजिटल भुगतान प्रणालियों को अपनाने से हिचकते हैं। इससे डिजिटल वित्तीय सेवाओं के उपयोग और डिजिटल साक्षरता के प्रसार की गति प्रभावित होती है।

• वित्तीय संस्थानों एवं डिजिटल सेवाओं पर सीमित विश्वास

धोखाधड़ी की आशंका, जटिल प्रक्रियाओं तथा पर्याप्त जानकारी के अभाव में अनेक लोग बैंकिंग और डिजिटल वित्तीय सेवाओं का उपयोग करने से बचते हैं। इससे उनकी वित्तीय एवं डिजिटल साक्षरता का विकास तथा औपचारिक वित्तीय प्रणाली में भागीदारी दोनों प्रभावित होते हैं।

• साइबर सुरक्षा के प्रति सीमित जागरूकता

ऑनलाइन धोखाधड़ी, फिशिंग, फर्जी लिंक, साइबर अपराध तथा डिजिटल ठगी के विभिन्न तरीकों के बारे में पर्याप्त

जानकारी न होने के कारण लोग डिजिटल सेवाओं का उपयोग करने में संकोच करते हैं। इससे डिजिटल वित्तीय प्रणाली पर उनका विश्वास भी कमजोर पड़ता है।

• वित्तीय एवं डिजिटल साक्षरता कार्यक्रमों के प्रभावी क्रियान्वयन की चुनौती

सरकार, भारतीय रिज़र्व बैंक, नाबार्ड तथा अन्य संस्थानों द्वारा वित्तीय एवं डिजिटल साक्षरता के लिए अनेक कार्यक्रम संचालित किए जा रहे हैं। फिर भी सीमित जनजागरूकता, अपर्याप्त प्रशिक्षण, क्षेत्रीय असमानताओं तथा कमजोर अनुवर्ती व्यवस्था के कारण इनका लाभ समाज के सभी वर्गों तक समान रूप से नहीं पहुँच पाता।

वित्तीय साक्षरता के विस्तार हेतु कुछ सुझाव

वित्तीय साक्षरता को समावेशी विकास का महत्वपूर्ण आधार माना जाता है। भारत जैसे विशाल और विविधतापूर्ण देश में वित्तीय साक्षरता का महत्व इसलिए भी बढ़ जाता है, क्योंकि यह समाज के प्रत्येक वर्ग को औपचारिक वित्तीय व्यवस्था से जोड़कर आर्थिक सशक्तीकरण की दिशा में आगे बढ़ाने का कार्य करती है। वित्तीय जागरूकता को जन-जन तक पहुँचाने तथा देश में वित्तीय साक्षरता के प्रचार-प्रसार को और अधिक प्रभावी बनाने हेतु कुछ महत्वपूर्ण सुझाव निम्नानुसार हैं:

- सामाजिक और सांस्कृतिक बाधाएँ भारत में महिलाओं के वित्तीय समावेशन को आज भी सीमित करती हैं। महिलाओं में वित्तीय साक्षरता की कम दर इस अंतर को और बढ़ा देती है, जिससे उनके आर्थिक सशक्तीकरण में रुकावट आती है। महिलाओं की वित्तीय साक्षरता सुनिश्चित करना इसलिए भी आवश्यक है, क्योंकि वित्तीय रूप से सजग महिलाएँ औपचारिक वित्तीय प्रणाली से जुड़ती हैं और आर्थिक आत्मनिर्भरता की दिशा में आगे बढ़ती हैं। महिलाओं की आर्थिक सशक्तता का

प्रभाव दूरगामी होता है, जिसकी झलक उनके परिवार की खुशहाली, समाज की प्रगति और राष्ट्र की समृद्धि में स्पष्ट रूप से दिखाई देती है।

- यह सर्वमान्य तथ्य है कि छोटी उम्र में विकसित आदतें जीवन भर व्यक्ति के साथ रहती हैं। बचपन में दी गई वित्तीय साक्षरता भविष्य में नौनिहालों को आत्मनिर्भर, जिम्मेदार और सुरक्षित आर्थिक जीवन अपनाने में सहायक बनती है। इसलिए आवश्यक है कि वित्तीय शिक्षण की शुरुआत विद्यालय स्तर से ही की जाए। जीवन कौशल के रूप में वित्तीय साक्षरता के महत्व को स्वीकार करते हुए राष्ट्रीय शिक्षा नीति 2020 ने स्कूल पाठ्यक्रम में वित्तीय शिक्षा के एकीकरण पर विशेष जोर दिया है।
- दूर-दराज़ के ग्रामीण क्षेत्रों में, जहाँ आधारभूत सुविधाओं का गंभीर अभाव है, वहाँ वित्तीय शिक्षण की व्यवस्था करना अत्यंत चुनौतीपूर्ण बन जाता है। जिन लोगों को अक्षर ज्ञान प्राप्त नहीं है, उन्हें वित्तीय रूप से साक्षर बनाना सरल कार्य नहीं हो सकता। इस समुदाय की सामाजिक और आर्थिक स्थितियों को निकट से समझकर ही वित्तीय शिक्षण को सही दिशा दी जा सकती है। इस हेतु आवश्यक है कि यह समझा जाए कि लोगों के लिए वित्तीय क्षेत्र की कौन सी जानकारी वास्तव में उपयोगी है, अन्यथा वित्तीय समावेशन के प्रयास अपेक्षित सफलता प्राप्त नहीं कर पाएंगे।
- वित्तीय साक्षरता के प्रसार के लिए विभिन्न बैंकों ने ग्रामीण विकास और स्व-रोज़गार प्रशिक्षण संस्थानों तथा वित्तीय साक्षरता और ऋण परामर्श केंद्रों की स्थापना की है। इन कार्यक्रमों के प्रभावी संचालन के लिए जरूरी है कि जमीनी स्तर पर कार्य करने वाले सभी अधिकारी और संस्थाएँ जैसे अग्रणी जिला प्रबंधक,

नाबार्ड के जिला विकास प्रबंधक, आरबीआई के अग्रणी जिला अधिकारी, जिला और स्थानीय प्रशासन, ब्लॉक स्तर के अधिकारी, बैंकिंग प्रतिनिधि, किसान क्लब, पंचायतें, प्राथमिक कृषि ऋण समिति आदि आपस में सुदृढ़ समन्वय बनाएँ, ताकि वित्तीय शिक्षा वास्तविक रूप से आमजन तक पहुँच सके।

- वित्तीय साक्षरता के प्रयास केवल आर्थिक रूप से कमजोर, ग्रामीण अथवा दूर-दराज़ के क्षेत्रों तक सीमित नहीं होने चाहिए। वित्तीय ज्ञान उन लोगों के लिए भी उतना ही आवश्यक है, जो शिक्षित हैं, शहरी क्षेत्रों में रहते हैं तथा आर्थिक रूप से सक्षम माने जाते हैं। वास्तव में, वित्तीय साक्षरता एक सतत् एवं विकसित होती प्रक्रिया है, क्योंकि समय के साथ वित्तीय सेवाओं, डिजिटल माध्यमों, नीतियों और नियमों में निरंतर परिवर्तन हो रहा है। नई तकनीकों और बदलती बैंकिंग व्यवस्थाओं की समुचित जानकारी शिक्षित एवं जागरूक वर्ग के लिए भी उतनी ही आवश्यक है, ताकि वे सुरक्षित, समझदारीपूर्ण और प्रभावी वित्तीय निर्णय ले सकें।

निष्कर्ष

आज के बदलते आर्थिक और डिजिटल दौर में वित्तीय साक्षरता तथा डिजिटल जागरूकता आर्थिक सुरक्षा की अनिवार्य आवश्यकता बन चुकी है। जब लोग सही वित्तीय निर्णय लेना सीखते हैं, डिजिटल माध्यमों का सुरक्षित और समझदारीपूर्ण उपयोग करते हैं तथा अपने अधिकारों और जिम्मेदारियों के प्रति जागरूक होते हैं, तब वे आर्थिक रूप से अधिक सक्षम और आत्मविश्वासी बनते हैं। यही समझ उन्हें वित्तीय धोखाधड़ी और डिजिटल जोखिमों से बचाती है

और औपचारिक वित्तीय व्यवस्था से मजबूती से जोड़ती है।

इस बात में कोई दो मत नहीं कि वित्तीय रूप से जागरूक और डिजिटल रूप से सजग नागरिक ही किसी भी राष्ट्र की वास्तविक शक्ति होते हैं। ऐसे नागरिक न केवल अपने परिवार और समाज की आर्थिक स्थिति को मजबूत बनाते हैं, बल्कि देश को समावेशी, सुरक्षित और प्रगतिशील अर्थव्यवस्था की दिशा में आगे बढ़ाने में भी महत्वपूर्ण भूमिका निभाते हैं। भारत की आर्थिक प्रगति की वास्तविक शक्ति उसके वित्तीय रूप से जागरूक और डिजिटल रूप से सजग नागरिक हैं। वित्तीय साक्षरता और डिजिटल जागरूकता का व्यापक प्रसार ही विकसित भारत की आधारशिला सिद्ध होगा।

स्रोत

<https://www.oecd.org/en/topics/sub-issues/financial-education.html>

<https://www.weforum.org/stories/2025/09/how-to-improve-outcomes-for-india-s-next-generation-through-financial-literacy/>

<https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/hechap06.pdf>

World Economic Forum (2025, September 15). How to improve outcomes for India's next generation through financial literacy.

National Strategy for Financial Inclusion, 2025-30.

Crime in India - 2024, National Crime Records Bureau.



Name of the Book: Foreign Exchange Concepts and Arithmetic Explained: Fundamentals of Forex Made Easy to Understand

Author: Mr. Sugata Datta

Publisher: Notion Press

Pages: 257

Price: Rs. 599/-

Reviewed by: Bimalkumar S. Gadhwal, Former Deputy General Manager, Bank of India.

Mark Douglas, a highly respected author and a pioneer in trading psychology once said that "No man ever reached to excellence in any one art or profession without having passed through the slow and painful process of study and preparation." How so true!

The fascinating and somewhat enigmatic and at the same time glamorous world of foreign exchange, largely existing in an invisible way, is difficult to fathom. Foreign exchange (Forex or FX) plays the most important role in international trade. One can imagine its importance from the fact that every day approximately USD 10 trillion is traded on forex market globally.

Forex market as seen today has evolved from an ancient barter system. What started as bartering one item for another evolved into Gold Standard when nations engaged in trade pegged value of national currencies to physical gold. Come 1944, amidst dark clouds of Second World War, Bretton Woods agreement was reached by major nations of the world and agreed to peg their currencies to United States Dollars (USD), replacing the Sterling Pound of Great Britain. Please note that the USD was fully backed by gold. But 1973 witnessed delinking of USD from gold and currencies; including USD, moved to free-floating exchange rate system where demand and supply of currencies determined their exchange rates.

And with this – free floating exchange rates – introduced. How to determine value of one country's currency against another country's currency? Apart from economic laws of demand and supply, variety of factors are at work, which are not so easy to comprehend. It requires some study and preparation.

To navigate the complex world of forex, one needs a sound grasp of not only theoretical aspects of forex but also arithmetic behind the exchange rate mechanism. The book "Foreign Exchange Concepts and Arithmetic Explained: Fundamentals of Forex – Made Easy to Understand" authored by Shri Sugata Datta, talked about the world of foreign exchange. The book is an essential guide to understand and to appreciate various nuances of foreign exchange in general and arithmetic in particular. This book demystifies various concepts of foreign exchange and explains in detail the forex arithmetic to arrive at exchange rates for different types of transactions in a lucid way. Shri Datta's experience of more than three decades is distilled in the contents and flow of these concepts in the book.

By the very nature, forex touches all walks of life and is a matter of concern to all, irrespective of whether one is engaged in international trade or investments or remittances. Take for example, a roadside tea-stall owner in a rural place: he does not have direct exposure to forex market. Yet, he too is affected, directly or indirectly, when prices of fuel go up or when export of sugar is liberalized or export of tea from the country touches record highs. All these – price of fuel,

export and import of raw materials like sugar and tea - affect the tea-stall owner, though he has no direct exposure to forex market, one way or the other.

As noted above, understanding forex is quite complex to ordinary people. Many practitioners describe forex as commodity. But they fail to drill down the concept in the minds of people. This book addresses various technical aspects in a simplified language supported by examples and flowcharts.

Spread across 18 chapters, the book starts with an introduction that sets the objective: Explain. This one word – Explain – is lived through the book.

First five chapters of the book are devoted to explaining basics and certain technical aspects of forex. Chapters are arranged such that each chapter while having a link to the previous chapter, can be read in isolation also.

Chapters 1 to 5 successfully build the necessary understanding of various shades of foreign exchange. Later chapters built on these put them into action to describe and explain how foreign exchange rates are arrived at.

The first chapter sets the tone of the book; second chapter elaborates on not only what is domestic currency and foreign currency; and also brings out differences between currency and money. Currency of one nation cannot be money in another country as money necessarily has to have the attribute of medium of exchange apart from medium of store of value. Money can be used to purchase goods and/or services in exchange. For example, INR is currency and plays the role of money in India where INR can be used to purchase goods and services. However, INR cannot function as money outside India, though it will always be called currency of India. After explaining what foreign exchange is, the chapter also addresses the question: why do we need foreign exchange.

The third chapter takes the readers to a higher level when it unravels subtleties of foreign exchange rates, cross-currency rates and factors affecting forex rates. The fourth chapter clarifies the characteristics of forex market. Chapter five explains the commodity nature of forex in the most intelligible fashion. A complex matter explained such that readers are left with no confusion any longer.

Chapter 6 and onwards focuses on foreign exchange arithmetic, the second titular part.

Chapter 6 introduces readers to the world of foreign exchange quotations; like direct and indirect quotes, concept of market maker and market taker, spreads between buying and selling rates and factors affecting such spreads, forex maxims, e.g. Buy Low/Sell High and vice versa in direct and indirect quotations.

Chapter 7 on calculation of merchant rates is interesting and will appeal to users of the forex market – bank customers in general and exporters/importers in particular. This chapter deals with what is called Merchant Rates and how they are calculated. Merchant Rates are foreign exchange rates quoted by a bank to its customer – be him an exporter or importer or even for inward or outward clean remittances. The chapter details how different types of merchant rates are calculated and more importantly, why profit margins are required by banks to mitigate risks in foreign exchange market. I am pretty sure once reasons for why profit margin is required for banks is understood and imbibed by the readers, there will be no friction between the banks and the customers.

Having explained basic concepts of exchange rates in Chapters 6 and 7, author introduces the readers to the mechanics of cross rates and explains what and why of cross rates and calculation of cross rates in Chapter 8.

Chapter 9 throws light on what is nostro account, vostro account and loro account. All these terms are explained with simple to follow examples, making it easy for readers to grasp the differences between these three types of forex accounts.

Chapter 10 delves into the idea of value dates like cash, tomorrow (tom) and spot as well as difference between business day and working day. Important concepts to comprehend before one venture in Chapter 11 which deals with nuances of forward rates and forward margins. This chapter describes what are forward rates, why are they different from spot rates and how forward rates are calculated from spot rates.

Chapter 12 complements Chapter 11 by explaining convention of quoting forex margins.

Chapter 13 focuses on various types of forex rates such as Telegraphic Transfer (TT) Buying or TT Selling or Bill Buying; including sight bills and usance bills or bill selling and also explains concept of normal transit period, whereas Chapter 14 deals with cross-currency forward rates.

Chapters 15 to 18 deal with technical aspects of forex rates like forward contracts, early delivery, cancellation and extension.

Chapter 15 clarifies concepts about forward contracts. Once what is forward contracts is understood, reader is taken to next level of early delivery of forex in Chapter 16. This chapter details early delivery, mechanisms and mechanics of early delivery and rules for early delivery.

Chapters 17 and 18 reveal the fascinating mathematics and logic for cancellation and/or extension of forex contracts. These two chapters explain what cancellation/extension is, discuss various scenarios like cancellation on due date or prior to due date, passing on profit/loss to customers, etc. Concepts like cancellation and extension of forward contracts are described in easy language with plenty of examples and flowcharts.

Each concept of foreign exchange and rate mechanism like two-way quotes, advanced Normal Transit Period (NTP), forward rates, forward margins, swaps, premium, discount, extension, cancellation, is covered in the book. Each concept is explained in a lucid and jargon-free language and lot of examples.

Exporters and importers, who regularly use banks' foreign exchange services, will find chapters on forward contracts, early delivery, extension and cancellation of forward contracts more interesting. Because these are the situations happening in real life so often and customers are at times intrigued by why and how banks quote rates in such situations.

Throughout the book, all chapters carry extensive number of examples to explain various concepts and/or calculations. Flowcharts complement examples and make it easier to comprehend various forex concepts and logic behind forex arithmetic.

Every question regarding forex that may arise in the mind of an ordinary person, who unbeknownst to him is an indirect participant in forex market; is answered in an easy-to-understand, jargon-free language with plenty of examples. To reinforce reading and understanding, exercises are included at the end of each chapter.

Readers will find that examples are solved step-by-step, with detailed explanations as to why a particular rate is chosen. For example, while discussing bill buying rate for sight bills, the topic not only covers what is bill buying but also what is sight bills, what is usance bills, how to account for NTP while purchasing a sight bill and why, how and what amount of premium will be added to the spot rates is explained in great detail, in plain English. This way, readers not only identify with the example or problem but also are able to appreciate the mechanism or logic for banks quoting certain rates in certain circumstances.

This book is an essential guide for beginners and professionals alike. This book bridges the gap between academic theory and real-world market operations with clarity and precision.

What sets this book apart is its methodical approach to forex arithmetic. The book deconstructs highly complex mathematical calculations step-by-step, cementing the logic behind each step. The book covers topics like, direct and indirect quotes and bid-ask spreads, forward rate calculations, premium and discount computations, calculation of cross-currency rates, step-by-step calculation of TT buying/selling and Bill buying/selling rates, margins, NTP, cancellation or extension or early delivery of forward sale/purchase contracts and how to calculate profit or loss on such cancellation/extension/early delivery, etc.

This book succeeds at its principal aim: to explain and to clear the mystery surrounding how forex rates are arrived at and quoted to the users. This book will prove extremely useful to both seasoned treasury professionals, for quick reference and explanation to customers in a language that the customers understand and to beginners; to assimilate fundamentals of forex and various concepts under forex.

This book offers both – conceptual clarity and confidence in calculation of rates. Readers are taken through a journey at the end of which one finds truly enlightened. Learners as well as advanced practitioners will find the contents of the book demystifies various nuances of forex such that forex no longer remains enigmatic.

Before I conclude, I must mention that this book is a masterfully written book by an industry veteran Shri Sugata Datta; who is an uncontested authority on forex matters. The book is successful at simplifying concepts as well as arithmetic of forex without compromising on the essentials.

Like the famous Warrant Buffett once said in the context of equity market – You don't need to be rocket scientist. It is equally applicable to forex market also. You do not need to be a rocket scientist to understand various aspects of forex and forex arithmetic. This book demystifies the otherwise intimidating and mystic, enigmatic world of foreign exchange. This book will surely prove a useful resource to all practitioners as well as students of the forex.



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Format: The manuscript file should be submitted in MS Word, Times New Roman, Font Size 12 with 1½ line spacing.

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