



## India to Become a Fintech Powerhouse

*This editorial is based on “[Lessons from India’s fintech revolution](#)” which was published in The Hindustan Times on 07/05/2024. The article brings into picture India's fintech revolution, which has enabled a direct shift to mobile-first financial solutions, bypassing traditional banking. While this model serves as a blueprint for emerging economies, addressing key challenges is crucial for global leadership.*

**For Prelims:** [India's fintech revolution](#), [Public-private-driven mode](#), [Core banking solutions](#), [Pradhan Mantri Jan Dhan Yojana](#), [Unified Payments Interface](#), [Account Aggregator Framework](#), [Digital India](#), [JAM Trinity \(Jan Dhan-Aadhaar-Mobile\)](#), [MSMEs](#), [Paytm Payments Bank](#), [India's Digital Personal Data Protection Act](#).

**For Mains:** Key Drivers of Fintech Growth in India, Key Issues Related to the Fintech Sector in India.

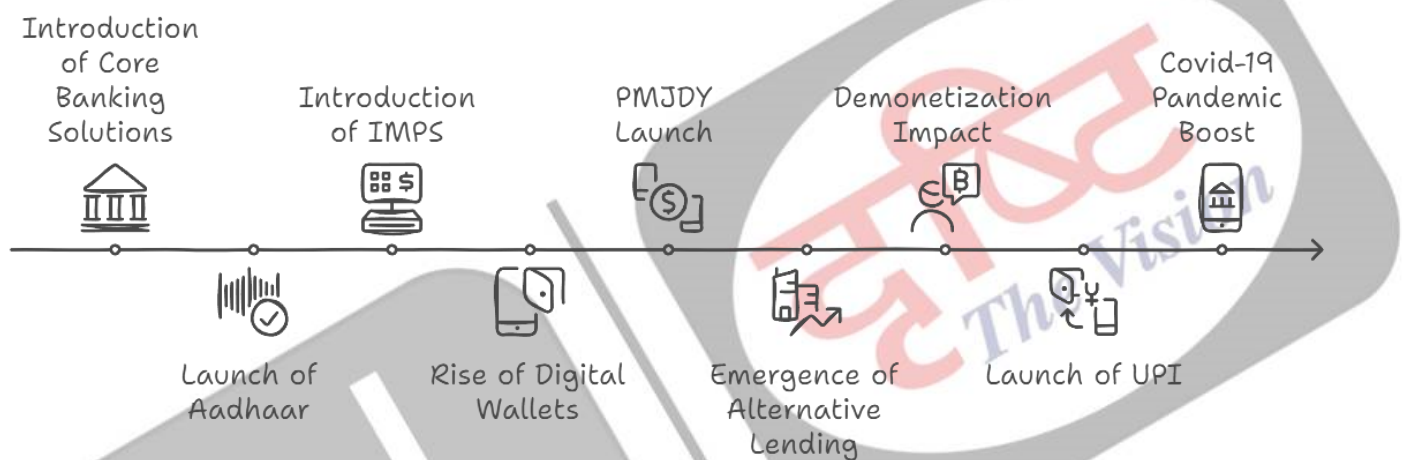
[India's fintech revolution](#) has **bypassed traditional banking**, enabling millions to **adopt mobile-first financial solutions**. Since **2009**, NPCI has standardized inter-bank transfers, facilitating a direct transition to digital payments—**distinct from the West's gradual evolution**. This [public-private-driven model](#) serves as a blueprint for emerging economies. However, to establish itself as a **global fintech leader**, India must address key challenges that lie ahead.

## How the Fintech Sector Evolved in India?

- **About: Fintech (Financial Technology)** refers to the use of technology to deliver financial services efficiently.
  - India's fintech journey has been shaped by factors such as **smartphone penetration, internet access, regulatory support, and digital payment innovations**.
- **Phases of Evolution**
  - **Early Phase (Pre-2000s)**
    - The banking sector relied on [core banking solutions \(CBS\)](#) and IT-driven services.
    - Introduction of **ATMs, NEFT, RTGS, and electronic clearing services**.
  - **Growth Phase (2000-2015)**
    - **2009**: Launch of Aadhaar, enabling digital identity verification.
    - **2010**: Introduction of Immediate Payment Service (IMPS) by NPCI, facilitating real-time transactions.
    - **2013**: Rise of digital wallets (e.g., Paytm) due to increasing e-commerce.
    - **2014**: [Pradhan Mantri Jan Dhan Yojana \(PMJDY\)](#) launched, expanding financial inclusion.
    - **2015**: Emergence of alternative lending platforms and digital NBFCs.
  - **Acceleration Phase (2016-2020)**
    - **2016**: **Demonetization** accelerated digital transactions.

- **2016:** Launch of [Unified Payments Interface \(UPI\)](#) revolutionized real-time fund transfers.
  - Growth of fintech startups in lending, wealth management, and insurance (e.g., Zerodha, PolicyBazaar, PhonePe).
- **Current Phase (2020-Present)**
  - **Covid-19 Pandemic (2020):** Boosted digital banking, contactless payments, and fintech adoption.
  - **2021:** [Account Aggregator Framework](#) launched for seamless financial data sharing.
  - **2022:** RBI introduced **Digital Lending Guidelines** to regulate online lending platforms.
  - Rise of **Buy Now, Pay Later (BNPL)** models and embedded finance solutions.
    - Growth of **Rupay Credit Card linked UPI payments, cryptocurrency exchanges (regulated), and AI-driven financial services.**

## Evolution of Fintech in India



## What are the Key Drivers of Fintech Growth in India?

- **Rapid Digital Adoption, Smartphone Penetration and 5G:** The widespread availability of **affordable smartphones** and **cheap internet** has driven digital financial services.
  - With over **80 crore internet users**, fintech solutions have become accessible even in rural areas, bridging the financial inclusion gap.
  - According to a recent survey The percentage of households with smartphones, as well as internet connectivity, is around **88%**
  - **5G subscriptions** in India are expected to account for nearly **65% of all mobile subscriptions** by the end of 2029 reaching 840 million.
- **Government Initiatives and Regulatory Support:** The Indian government's push for a cashless economy through [Digital India](#), [JAM Trinity \(Jan Dhan-Aadhaar-Mobile\)](#), and **financial inclusion schemes** has significantly boosted fintech.
  - Over **54.58 crore Jan Dhan accounts** are opened as of 15th January, 2025, with **55.7% held by women**.
  - **RBI and SEBI** have introduced regulatory frameworks for **digital lending, digital banking units, and account aggregators**, ensuring a stable environment for fintech growth.
- **UPI Revolution and Payment Innovations:** India's [Unified Payments Interface \(UPI\)](#) has transformed digital transactions, offering seamless interoperability and zero-cost transactions.
  - The launch of **UPI-linked credit card payments** has further expanded its reach.
  - **UPI** is projected to account for **90% of the total transaction** volume in retail digital

payments over the next 5 years.

- India is expanding **UPI adoption in global markets**, with partnerships in Singapore, UAE, and France (NPCI).
- **Rise of Digital Lending and Alternative Credit Models:** Fintech-driven lending has expanded access to credit, especially for **MSMEs** and gig workers, using AI-based risk assessment instead of traditional credit scores.
  - Digital lenders and **Buy Now, Pay Later (BNPL)** models are reshaping consumer finance, offering instant, collateral-free credit.
  - The size of the Indian digital lending companies is set to grow from **USD 38.2 billion in 2021** to nearly **USD 515 billion by 2030**.
- **Growth of InsurTech and WealthTech Platforms:** The fintech sector has disrupted **insurance (InsurTech)** and **wealth management (WealthTech)**, making financial products more accessible through digital channels.
  - AI-powered advisory services, robo-advisors, and blockchain-driven insurance claims have enhanced efficiency and transparency in financial planning.
  - The **WealthTech market** in India is projected to exceed **\$60 billion by 2025**, growing at a **12-15% CAGR (NASSCOM)**.
  - The **Indian InsurTech sector** has witnessed a **12-fold revenue growth** over the past five years to \$750 million in 2023, according to a report released by Boston Consulting Group
- **Expansion of Embedded Finance and Open Banking:** Embedded finance, where financial services are integrated into non-financial platforms (e.g., **Amazon Pay, Ola Money**), is driving seamless transactions.
  - Open Banking, facilitated by the **Account Aggregator framework**, enables secure financial data sharing, improving credit access for individuals and businesses.
  - Embedded finance can unlock \$25 billion revenue opportunity for India's digital and financial services platforms by 2030.
  - **India's Account Aggregator (AA)** ecosystem has expanded significantly, with **1.1 billion AA-enabled accounts** and **2.05 million users** voluntarily sharing their financial data with banks and financial institutions to access loans and secure better, faster deals on financial products.
- **Rise of Blockchain and CBDC (Digital Rupee):** Blockchain technology is enhancing security, transparency, and efficiency in financial transactions.
  - The RBI's launch of the **Central Bank Digital Currency (CBDC) or Digital Rupee** aims to modernize the payment ecosystem, reducing dependency on cash.
  - The latest Currency and Finance Report indicates that the number of retail **e-rupee users reached 5 million** by the end of June 2024.
  - India's blockchain technology market generated **USD 321.5 million in revenue in 2022** and is projected to grow to **USD 53,182.9 million by 2030**
- **Increasing Foreign Investments and Fintech Startups Boom:** India's fintech ecosystem is one of the **world's fastest-growing, attracting global investors**.
  - The combination of a vast consumer base, progressive regulations, and technological advancements makes India a fintech hub.
    - India has over **2,500 fintech startups**, second only to the US (**Invest India**).

## What are the Key Issues Related to the Fintech Sector in India?

- **Regulatory Uncertainty and Compliance Challenges:** The fintech sector in India operates in a **rapidly evolving regulatory environment**, leading to uncertainty for startups and investors.
  - **RBI banned Paytm Payments Bank (2024)** from onboarding new customers due to regulatory violations, highlighting significant compliance challenges in the sector.
  - Also, the lack of clear guidelines on **AI-enabled fintech, cryptocurrency, and data protection** makes compliance difficult.
- **Cybersecurity Risks and Digital Fraud:** With increasing digital transactions, cyber threats like **phishing, identity theft, and financial fraud have surged**.
  - Many fintech firms lack robust cybersecurity frameworks, exposing customer data to breaches.
  - India witnessed a **65% increase in payment fraud cases in 2023**, with financial losses exceeding **INR 1200 crore**.

- UPI frauds constituted around 40% of these incidents with **digital arrest** led fraud being the prominent ones.
- **Digital Lending and Predatory Practices:** The rise of digital lending platforms has led to issues like **high-interest rates, unethical recovery practices, and harassment of borrowers.**
  - Many loan apps operate without proper RBI registration, trapping low-income users in debt cycles.
  - While RBI's [Digital Lending Guidelines](#) aim to regulate the sector, enforcement challenges persist.
  - The Indian government recently proposed a law to ban unregulated lending and impose a **Rs 1 crore fine on offenders**, but implementation remains a major concern.
- **Data Privacy and Consent Issues:** Fintech companies collect vast amounts of user data but lack robust frameworks to ensure privacy and transparency.
  - India ranked **5th in global data breaches in 2023**, with 5.3 million leaked accounts.
  - Many apps access **sensitive information without user consent**, leading to data misuse and security concerns.
  - [India's Digital Personal Data Protection Act \(2023\)](#) with its recently released rules, is still in its nascent stage.
- **Digital Divide and Financial Inclusion Gaps:** Despite fintech growth, **rural and semi-urban** India still faces challenges in accessing digital financial services.
  - **Limited internet penetration, lack of digital literacy**, and language barriers prevent millions from benefiting from fintech solutions.
    - The JAM (Jan Dhan-Aadhaar-Mobile) framework has expanded access, but digital adoption remains slow.
  - Only **38%** of rural or semi urban Indians use digital financial services. **Also, 11.30 crore** Jan Dhan accounts remain inactive.
- **High Customer Acquisition Costs and Profitability Concerns:** Fintech startups struggle with high customer acquisition costs due to **intense competition and heavy reliance on discounts and cashback offers.**
  - Many firms operate on **thin margins, making long-term profitability a challenge.** The lack of a sustainable revenue model has led to the shutdown of several startups.
  - Fintechs in India raised just **USD 2.1 billion in 2023**, reflecting a nearly **300% drop from 2022.**
- **Monopoly Concerns and Lack of Market Competition:** A few players dominate India's fintech ecosystem, leading to concerns about monopolistic practices.
  - **Three firms control over 94% of UPI transactions** – PhonePe, Google Pay , and Paytm.
    - Lack of competition reduces innovation and creates dependency on a handful of platforms.
  - NPCI introduced **UPI market cap rules** to limit the dominance of big players, but full implementation is delayed and deadlines keep getting extended.

## What Steps can India take to Revitalize its Fintech Sector and become a Global Model?

- **Establishing a Comprehensive and Adaptive Regulatory Framework:** India needs a **unified and dynamic regulatory framework** that balances innovation with consumer protection.
  - Clear **guidelines on digital lending, data privacy, cryptocurrency, and embedded finance** will create stability for fintech players.
  - A **Regulatory Sandbox 2.0** can allow controlled testing of new financial products before full-scale implementation.
  - Strengthening coordination between **RBI, SEBI, and NPCI will ensure streamlined oversight.**
- **Strengthening Data Protection and Cybersecurity Infrastructure:** **Digital Personal Data Protection Law** should be complemented with clear provisions on **consent, data portability, and security**, that will safeguard user privacy.
  - Mandating **zero-trust security architecture** and AI-driven fraud detection will enhance cybersecurity resilience.
  - **Stricter penalties for data breaches and compliance mandates** for fintech firms will build consumer trust.



- Promoting indigenous cybersecurity startups can reduce reliance on foreign security solutions.
  - Also, India can **lead global fintech security standards by integrating blockchain** for secure transactions.
- **Financial Inclusion through Regional Language Fintech Solutions:** To bridge the **digital divide**, fintech platforms must provide multilingual, voice-enabled, and AI-driven interfaces.
  - Leveraging **UPI Lite, offline payments, and feature-phone banking** will improve accessibility for low-income groups.
  - Encouraging Indian fintech startups to develop **vernacular financial literacy programs** will enhance adoption in rural areas.
  - Special financial products tailored for **MSMEs, gig workers, and women entrepreneurs** will promote inclusive growth. India can showcase fintech as a tool for mass financial empowerment to the world.
- **Encouraging Open Banking and Interoperability for Seamless Transactions:** A well-structured **Open Banking ecosystem**, supported by **the Account Aggregator framework**, will enable secure and seamless financial data sharing.
  - Mandating **universal API standards** will improve interoperability among fintech firms, banks, and NBFCs.
  - Expanding **UPI-like models for global remittances and cross-border transactions (as initiated by India with UAE)** will enhance India's global fintech footprint.
  - Ensuring fair access to financial data while **preventing monopolistic control will promote healthy competition**. Open banking can position India as a model for democratic digital finance.
- **Scaling Embedded Finance and BNPL with Responsible Lending Guidelines:** Embedded finance (fintech within non-financial platforms) and **Buy Now, Pay Later (BNPL)** models must be regulated with consumer protection safeguards.
  - Mandatory **risk assessment algorithms** will prevent over-lending and debt traps.
    - Introducing a **Central Digital Credit Bureau** can monitor alternative credit lending in real time.
  - Encouraging ethical lending practices through **interest rate transparency and responsible debt collection policies** will reduce predatory lending.
- **Strengthening Fintech Funding:** To sustain fintech innovation, **Fintech Venture Funds** backed by government-private partnerships should provide early-stage capital.
  - **Tax incentives for startups in AI-driven finance, blockchain, and cybersecurity** will attract more fintech entrepreneurs.
    - Expanding **co-lending models between fintech firms and traditional banks** can create hybrid financial solutions.
  - Ensuring fintech startups have a clear **path to profitability instead of over-reliance on cashbacks and discounts** will make the sector more resilient.
    - A balanced funding ecosystem will establish India as a **global fintech hub**.
- **Leveraging AI, Blockchain, and Quantum Computing for Next-Gen Fintech:** Encouraging **AI-driven wealth management, fraud detection, and automated lending** can enhance financial efficiency.
  - Blockchain-powered **smart contracts** for trade finance and asset tokenization will drive financial innovation.
  - Exploring **quantum computing for ultra-secure transactions** will place India at the forefront of fintech security research.
  - Promoting **decentralized finance (DeFi) regulations** will enable India to lead in Web3-driven financial systems.
    - Adopting deep-tech-driven fintech models will position India as a **next-generation financial powerhouse**.
- **Institutionalizing Global Fintech Standards and Thought Leadership:** India should **lead international fintech standardization efforts** through the **G20, BIS, and IMF** to influence global regulations.
  - Establishing an **India Global Fintech Institute** to conduct research, policymaking, and regulatory innovation will strengthen thought leadership.
  - India can emerge as the **Silicon Valley of Fintech** by **driving regulatory and technological best practices**.

## Conclusion:

India's fintech revolution has **redefined financial inclusion through digital payments, AI-driven lending, and blockchain innovations**. Strengthening data protection, fostering competition, and enhancing global fintech partnerships will be key to leadership in the sector. A balanced approach—**promoting innovation while ensuring consumer protection**—can position India as a **global fintech powerhouse**.

### **Drishti Mains Question:**

India's fintech revolution is reshaping financial intermediation, often bypassing traditional banking structures. In this context, critically examine whether fintech is democratizing finance or deepening digital and economic divides.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

**Q. With reference to India, consider the following: (2010)**

1. Nationalisation of Banks
2. Formation of Regional Rural Banks
3. Adoption of village by Bank Branches

**Which of the above can be considered as steps taken to achieve the “financial inclusion” in India?**

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

**Ans: (d)**