



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.

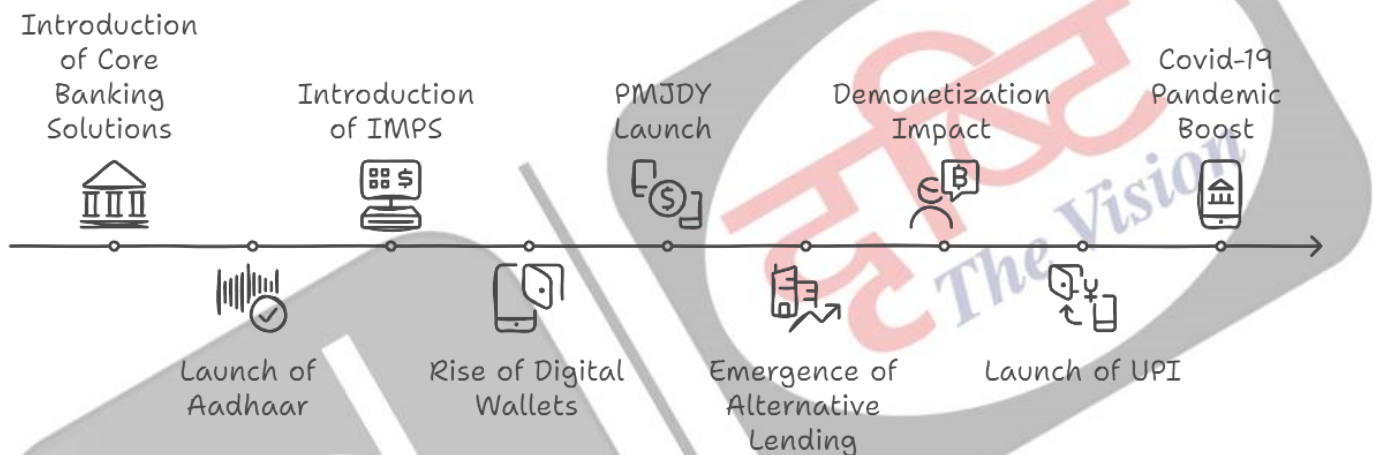
How the Fintech Sector Evolved in India?

- **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)