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**\$1 Tn India FinTech
Opportunity:
Chiratae Ventures-EY
FinTech Report**

Authors



TCMeenakshi Sundaram
 Founder and Vice Chairman



Avni Jain
 Associate Vice President,
 Co-lead: Fintech (Wealth Tech and InsurTech)



Mandeep Kaur Julka
 Vice President,
 Co-lead: Fintech (Payments and Lending)



Nilesh Naker
 Partner, Technology Consulting



Sushil Zaregaonkar
 Partner, Digital FS Consulting & FinTech



Anmol Puri
 Engagement Manager, FinTech Advisor

Sachin Seth | Former Partner, Digital & FinTech Leader

Kumar Abhishek | Former Sr. Consultant

Rahul Taide | Consultant

Karan R Teluja | Senior Manager

Vaibhav Mishra | Asst. Manager

Karan Chowdhary | Senior Analyst

Nandini Kothari | Associate

Foreword



Sudhir Sethi

*Founder and
Chairman*

Chiratae Ventures

The Indian Fintech market has been a formidable global force, contributing to the largest share of unicorns in India. India is recognized as a global hub on account of a mature funding ecosystem as well as supportive regulatory environment. With the increasing impact of digitalization, fintech has made strong in-roads, initiating the underserved and unserved in a new era with accessibility and pegging India with one of the highest fintech adoption globally. The India opportunity is massive and has expanded many-folds due to the accelerated digital adoption in the last 2 years. Today 1 Bn+ individuals require access to formal credit and insurance, 150mn+ MSMEs require access to capital.

While the initial momentum was propelled by Payments, Lending, WealthTech and InsurTech have come to the fore with multiple start-ups experimenting with innovative products, business models and partnerships with incumbents. New technologies such as blockchain are also providing fillip to Cryptocurrency and DeFi players.

At Chiratae, we have invested in companies to contribute to ecosystem value creation – e.g. farmers needing agri loans facilitated through our companies such as CropIn and Ergos, MSMEs requiring working capital and short term credit where our portfolio company Vayana has bridged the gap, individuals requiring access to liquidity earlier in the month than payday where our portfolio company Early Salary provides tailor made solutions and our portfolio company ShopSe providing buyers credit on offline as well as online channels. Not only in Lending, in Insurance as well, our fund backed listed company Policy Bazaar is a market leader providing access to all types of insurance to the Bn+ people in India. We have been a technology first investor believing in the power of both data and technology and hence have backed companies such as Chainflux, Credit Mantri, Active.AI and Fintellix . Across 5 funds, Chiratae has invested in 13 FinTech companies.

This report has been prepared in collaboration with our knowledge partner, Ernst & Young India to stitch together a holistic view of the market dynamics, in order to appeal to the needs of investors, entrepreneurs, broader financial services community as well as the LPs. We have through various interactions with industry leaders and detailed research identified key themes which have emerged in the market and will become very sizeable in the near future as well as identified new areas where the market will accelerate over the medium to long term.

We hope that the opinion presented in this report will help drive dialogue in the industry and the ecosystem. We look forward to your feedback and suggestions. Happy reading!

Foreword



**TC Meenakshi
Sundaram**

*Founder and Vice
Chairman*

Chiratae Ventures

India is the world's 3rd largest fintech market, behind only the US and China. Around 1000 FinTechs have been funded and c.\$18B invested in the last five years. The sector boasts of over 21 unicorns as of Mar'22.

A large underpenetrated market across multiple financial services and favourable demographics continue to be the primary drivers of innovation led by FinTechs across product and delivery. As of 2019, only 2% of the Indian population participated in the national stock market compared to 55% in the US. Non-life insurance penetration stands at 0.9 for India, compared to an average of 4.1 for countries such as US, UK and China. Similarly, there is a significant gap in household credit, which as a percentage of Nominal GDP stands at 34% for India but over 65% for developed markets.

FinTechs have innovated for the underserved financial needs through a strong and supportive ecosystem, which will continue to keep accelerating growth and penetration of Fintech in India. These include fast-growing digital adoption and mobile penetration on the back of one of the cheapest data rates in the world offered by private telecom players, to enabling regulatory environment coupled with world-leading digital infrastructure (Aadhar, UPI, BBPS etc.), and structural reforms and initiatives (GST, TReDS etc.).

Greater innovation is expected through new initiatives like the Regulatory Sandbox framework, Sahay, Public Credit Registry (PCR), National Health Stack, safe data-sharing Account Aggregators (AA) and the Open Credit Enablement Network (OCEN) in the coming times.

Looking ahead, we also expect FinTechs to continue solving for the substantial and growing sub-markets with novel solutions. For example, B2B Payments is expected to witness innovation in point-of-sale (POS) systems, while Retail payments growth will come from the RBI's push for offline payments via cards and mobile devices. Digital lending start-ups will continue to service SMEs; consumer lending will be driven by small-ticket unsecured products via P2P Lending, BNPL, Co-Lending and other avenues. We expect FinTech facilitated lending to grow to \$515 B in book size by 2030, an over 1200% growth over 2021. Similar growth is expected in other sectors, including the Indian WealthTech market which is expected to grow to \$237 B by 2030. Growing technology adoption, disposable incomes and awareness of avenues for wealth management are fuelling this growth, and FinTechs have been quick to tap into this interest with innovative solutions such as micro investing. Insurance in India has also witnessed considerable growth focused on digital distribution; future growth is expected across the value chain including innovation in underwriting, new product-forms, deep use of data and analytics and automation in claims processing in this market which we expect to reach \$88 Billion by 2030.

Though the FinTech industry has witnessed phenomenal growth till date, path to monetisation is increasingly becoming critical. Thus, leveraging existing user bases to distribute other financial products and expanding the addressable market from digital to 'phygital' are likely to bring in the required business model transformations for a relatively mature and sustainable FinTech ecosystem. For established FinTechs, porting business models to regulatorily similar international markets after achieving product maturity domestically, especially in domains such as UPI enabled Payment Platforms, is expected to be the way forward.

We expect these and more will lead the Indian FinTech market to play a pivotal role in India's journey towards GDP of \$ 5 Trillion while achieving \$1 Trillion in AUM and \$200 Billion in revenue by 2030

About Chiratae Ventures



Launched in 2006, Chiratae Ventures India Advisors is India's leading technology Venture Capital funds advisor. The funds advised by Chiratae Ventures India Advisors collectively have over \$1Bn under management and 125+ investee companies across SaaS, Consumer Media & Tech, Health-tech, and Fin-tech. The fund has been an early backer of Cure.fit, FirstCry, Flipkart, Globalbees, Lenskart, Manthan, Myntra, Uniphore and has invested in leaders like AgroStar, Bizongo, Bounce, Cropin, EarlySalary, GoMechanic, HealthifyMe, Hevo Data, PolicyBazaar, Pyxis, Vayana, amongst others. Chiratae closed its fourth fund, oversubscribed at \$337 million in 2021. The team has delivered value for its investors through the years with over 43 exits, 3 IPOs and 8 Unicorns.

www.chiratae.com



\$4 Bn¹
Total Market Cap



13
Major FinTech investments



rentomojo

* Gone for IPO

** Investment has been exited

Chiratae philosophy revolves around backing differentiated tech-led models

In FinTech, we have invested in companies with a tech first approach and centred on long term sustainability.

The core of Chiratae's thesis has been to back companies with tech-led models, focused on delivering substantially different value proposition



Payments

bonushub

- Opportunity through a SaaS platform play centred on incumbents as B2C and B2SME spaces are crowded with little to no differentiation



Lending



- Platform play focused on solving for all stakeholders through saleable tech
- Book play only in segment-specific niche whitespaces with sustained advantage



Wealth

KRIOTAL

- Model targeted at affluent segment to serve them through a digital private bank and avoiding the crowded space of robo-advisors



Insurance



- Distribution play in a nascent market (backing the market leader) with continued keen focus on identifying underwriting innovation



Banking



- Technology enablers with horizontal applicability across multiple verticals

Foreword



Rajiv Memani

*Chairman and
Managing Partner
EY India*

FinTech has had a significant impact on the global Financial Services industry over the last decade. India is recognized as a strong FinTech hub globally, and as the Indian entrepreneurial landscape continues to evolve, more FinTech use cases-led businesses are getting developed and more investors are backing these businesses.

The promising Indian FinTech market is expected to reach \$1 Trillion in AUM and \$200 Billion in revenue by 2030. FinTech funding recorded a 3X jump in 2021. This growth has been driven by an organic and collaborative ecosystem, while being supported by key government initiatives. India stack and innovation by FinTechs has powered the financial inclusion drive being witnessed in the country.

We are glad to partner with Chiratae Ventures for this report that delves into the Indian FinTech ecosystem and emerging trends across regulatory innovation, technology advancements, new business models, industry convergence, inclusive digital financial services and India emerging as a talent hub. Our insights are based on our work with both established companies and start-ups on their business and technology strategies, which tell us that Indian FinTechs have converted market challenges into opportunities through a focus on innovation. This has led to FinTech and non-FinTech players building super apps to engage customers across a wider product suite. Even as Digital lending and Buy-now-pay-later models have become mainstream, massive opportunities are emerging in InsureTech and WealthTech with future potential to be tapped in Agri+FinTech and Prop+FinTech. Through the intersection of FinTech with Health sector, the challenge of unaffordability in the HealthTech value chain can also be addressed.

In the report, we also look at the role of regulators who have actively encouraged innovation through regulatory sandboxes, new distribution models, and the launch of innovative products. Even as a few regulatory challenges need to be addressed, it is anticipated that regulators will continue pushing for a digital agenda. Finally, we explore the role of the huge availability of tech talent in India which has seen 5X growth. This makes India the world's biggest talent market and key for talent acquisition for global companies.

To conclude, due to emerging technologies, changing cultural trends and a favourable regulatory landscape, FinTech has been growing beyond boundaries. FinTechs can expect future technology breakthroughs to propel the expansion of the market even further and revolutionize the manufacturing, delivery, and consumption of financial products and services in the coming years.

Executive Summary

- FinTech is expected to be \$1 Tn in AUM and \$200 Bn in revenue by 2030; FinTech funding in India recorded a 3X jump in 2021
- More than \$9Bn in investments were made in digital lending in the last 5 years and the market is expected to grow to \$515 Bn in book size by 2030
- Buy Now Pay Later has become mainstream and is on an accelerated growth trajectory, emerging strong not only in B2C but also B2B payments space
- Innovation happening in wealth tech to serve new class of investors; new asset classes, NFTs and Cryptos will continue to drive more investor interest
- Owing to significant untapped insurance opportunities and innovative InsurTech models, the space is seeing growth in funding and is expected to hit \$88 Bn in size by 2030. Innovation in health insurance coupled with the government's digital efforts will fuel market growth
- Surge in digital financial services has attracted global neo-banking players such as Revolut and Tide, established domestic players will level the field
- Regulators are actively encouraging innovation through regulatory sandboxes, new distribution models, and the launch of innovative products
- India stack and innovation by FinTechs have powered the financial inclusion revolution being witnessed across the country. Innovative solutions are being deployed to serve Tier 3+ market
- With 5X growth in digital tech talent, India has the opportunity to address the global digital skill gap and establish itself as the destination of digital and tech talent
- Due to emerging technologies, changing cultural trends and a favourable regulatory landscape, FinTech has been growing beyond boundaries. Agri+FinTech and Prop+FinTech are both big bets

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India FinTech Market Landscape



a. | Evolution of FinTech in India

b. | India is now being recognised as one of the largest FinTech ecosystems

c. | India FinTech Market in Numbers

d. | India's Tech Investment Ecosystem

India FinTech Market Landscape

- 1. FinTech sector in India is expected to reach \$1 Tn in AUM and \$200 Bn in revenue by 2030; FinTech funding in India recorded a 3X jump in 2021**
- 2. India is recognized as a strong FinTech Hub globally**
- 3. Historical FinTech growth has been driven by an organic and collaborative ecosystem while being supported by key government initiatives**
- 4. The market has seen high valuations on the back of large untapped market opportunity**

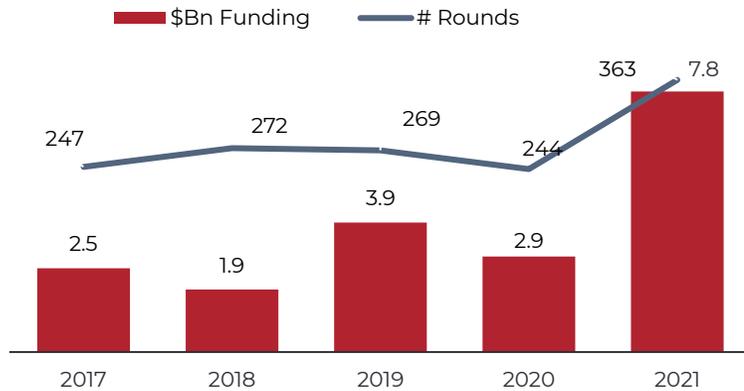
1. The next decade will record a 10X growth in the India FinTech market to achieve \$1 Tn in AUM and \$200 Bn in revenue

■ 2021
■ 2030

		AUM	Revenue	What will drive growth?
Lending	Book size, \$ Bn	38 (2021), 515 (2030)	8 (2021), 105 (2030)	Expanding on the back of customized segment-specific solutions
Payments	Tx Volume, \$ Tn	16 (2021), 106 (2030)	8 (2021), 54 (2030)	Greater penetration of UPI and acceleration of FinTech adoption
InsurTech	GWP, \$ Bn	6 (2021), 88 (2030)	3 (2021), 36 (2030)	Higher awareness and ease of policy purchase and claims process
WealthTech	AUM, \$ Bn	20 (2021), 237 (2030)	0.2 (2021), 2.37 (2030)	Need of holistic solutions and new asset classes to serve NTW ¹ and NTI ¹
Neo-banking	SA \$ Bn	40 (2021), 215 (2030)	0.4 (2021), 2.2 (2030)	Stronger push to enhance financial services penetration across unbanked and underbanked segments

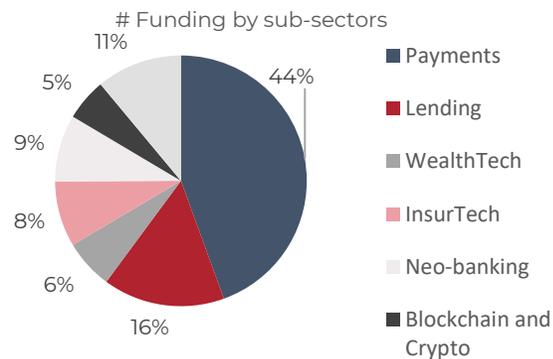
2. India FinTech Market in numbers – past and future

FinTech funding recorded 3X jump in 2021



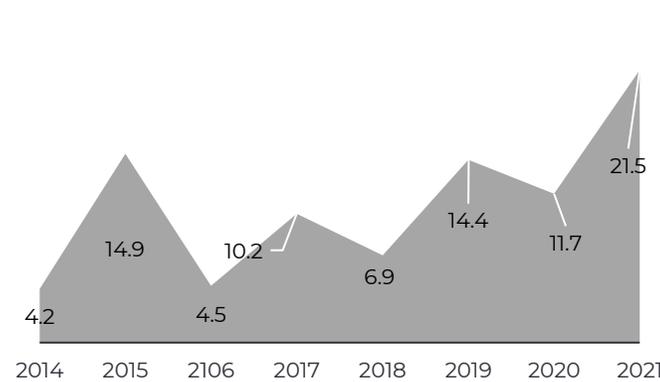
Source: EY Analysis

Payments, Lending & InsurTech stood as the most preferred sectors (2021)



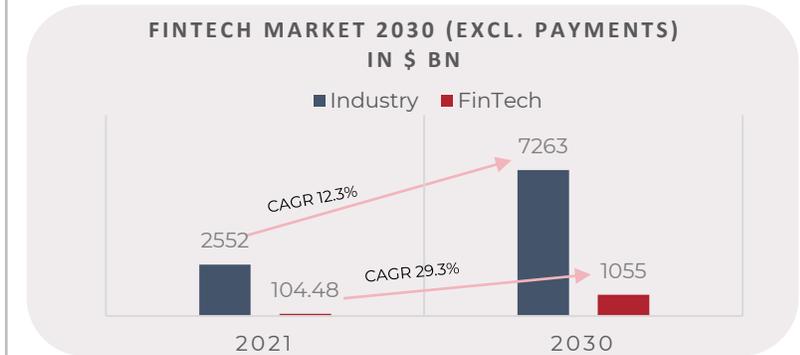
Source: EY Analysis

Average ticket size hit record high in 2021 (\$ Mn)



Source: EY Analysis

India FinTech market in 2030 expected to be \$1 Tn



Source: Chiratae Analysis



- FinTechs addressing the changing business environment
- Adapting to digital-savvy customers
- Using data as innovation



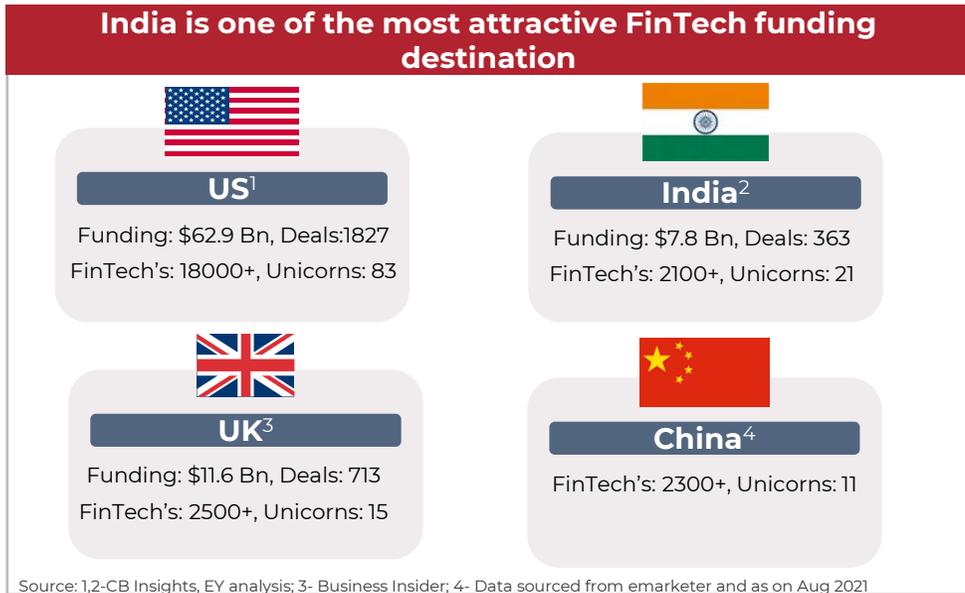
BNPL has grown in popularity but now faces regulatory uncertainty. In a recent research report on digital lending, the Reserve Bank of India advised that such products be considered on-balance sheet lending.



Small-ticket insurance has grown in popularity and is being targeted for growth by businesses like **Digit**, **Toffee Insurance**, and even non-bank finance providers including leading NBFCs.



3. India is now being recognised as one of the largest FinTech ecosystems, home to 21 FinTech Unicorns



Key Indicators	High	Med	Low
Startup Ecosystem ranking based weighted score for FinTechs	80+	50+	<25
UNCTAD ranking**	High	Upper Mid	Low
Total funding	\$10 Bn+	~\$5 Bn - 10 Bn	<\$2.5 Bn

Regulatory authorities' proactive support to create hubs, sandboxes, licensing

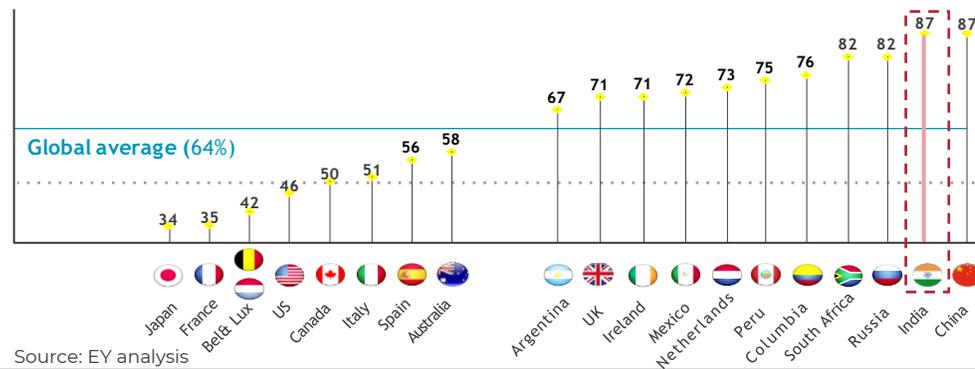
Source: EY analysis

India has a mature funding ecosystem, with regulators playing an active role in market growth

Parameters	India	USA	China*	Singapore	UK
Entrepreneurial spirit	High	Med	Med	Med	Med
Govt. Support & Other Initiatives	High	Med	Med	Med	Med
Technology** Preparedness	High	Med	Med	Med	Med
Regulatory Support	High	Med	Med	Med	Med
Funding	High	Med	Med	Med	Med

Source: EY analysis

Progress on FinTech adoption globally and across key markets (2020)



Note: 1. FinTech entrepreneurship score is a weighted average based on the country's startup ecosystem ranking (CEO world 2021), #FinTechs in the country, #FinTech unicorns, and the ratio of unicorns to total FinTechs 2. PRC average positioning included both HK and China. While HK government support is positive, recent developments in China had an adverse impact 3. India's NASSCOM is one of the leading technology bodies in the world and has been aggressive in pushing the tech agenda

Note 2 -Government policies and initiatives focused on the digital economy, customer/data protection, financial inclusion initiatives (e.g. PMJDY), startup ecosystem push (tax and incentives) and other support that favour FinTech growth. Regulatory initiatives include new license issuance, tech policies, acceptance of new business models, absence of blanket bans on certain categories, support to tech startups, acceptance to frameworks and consortiums/collectives, and creation of new funds to support financial infra etc.

4. An organic and collaborative ecosystem is driving this growth which is being supported by key government initiatives

Union Budget 2021 reforms



The government allocated **\$196.8 Mn (₹1,500 Cr)** for boosting digital payments



FDI (2021) increased from **49%** to **74%** for InsurTech Segment

Source: Union Budget

Infrastructural support



Digital India & Smart City initiatives to attract foreign investments & promote digital infra development



Introduced a dedicated portal to offer **easy registration** for potential **start-ups**

Development of UPI (2016)



UPI Payments: **50%** of digital payments **4X** of debit/credit card transactions*



UPI Autopay
UPI enabled IPO payments
Recurring payments
UPI offline payments



UPI eyeing international expansion with integration with Singapore's PayNow

Source: Jefferies, RBI *By Volume

Demonetization (November 2016)



Currency Circulation

Reduced by 86%
Propelled Digital Payments adoption



Digital Payments Volume

Increased by 55%
Value increased by 24.2%



Banks, big techs, & government helped launch digital payments channels



Source: BBC

The 'Start-up India' initiative (2016)



Initiative to support entrepreneurs to build an inclusive ecosystem for innovation in the country

Source: Netscribes

Taxation and surcharge relaxation



80% rebate on patent costs for start-ups



Exemption of income tax for start-ups during the **initial 3 years** of their establishment



Merchants get a tax reduction if they take **>50%** of their **payments online**.



Surcharge exemption on online and card payments

Source: Press articles

India Stack (2010)

Collection of open APIs which allows government, businesses, and developers to build digital solution around a uniquely identifiable individual powered by Aadhaar as the foundational layer

IndiaStack 4 Core Principles

Presenceless Layer

Authenticate service from anywhere in country



Paperless Layer

Reliance on digital records for individual's identity



Cashless Layer

Democratizing payments



Consent Layer

Secure movement of data



Providing credit without friction

Build a credit marketplace for credit accessibility and scalability for financial inclusion



Accessible Investments

Low cost, high volume, low ticket size

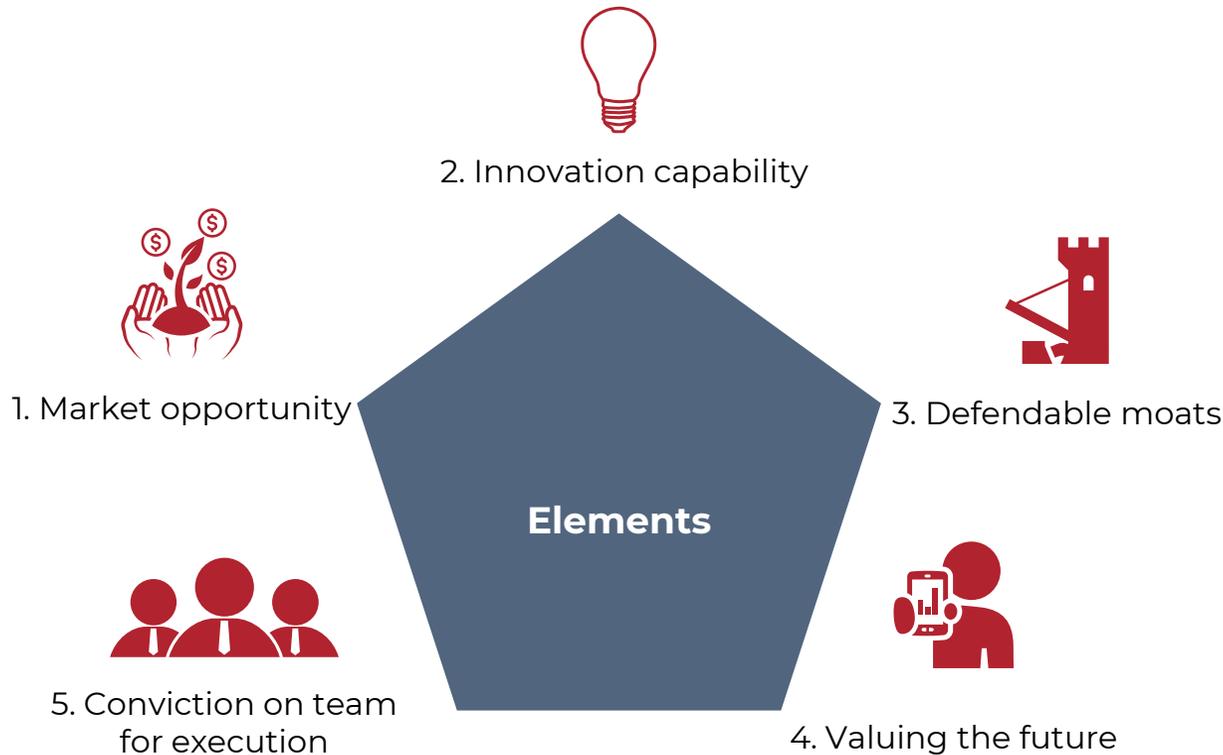


Skills Marketplace

Enhance trust & scalability of skills

5. Demystifying the high valuation in India FinTech space

Elements of Valuation assessed by investors



Why India presents a strong position across dimensions for investors

1. Large untapped market opportunity with sub-segments such as millennials, salaried, Tier 2+ etc. being sizable by themselves. Also, FinTech serves as the base layer to enable commerce.
2. FinTechs are leading the charge on both products as well as business model innovation, increasing reach and accessibility across the board.
3. Tech-led, service-led, product-led models being built by FinTechs are challenging the status quo established by incumbents.
4. While current numbers on traction may be on the lower side, investors are eyeing the future potential in generating outsized returns
5. In the venture capital stage, valuation is also driven by conviction on the execution potential of a team, and founders with prior operating experience make it more nuanced to take a call

2

Key Trends in FinTech Verticals

responsible investing

social responsibility

traditional mi

clean tech

green technology

electric vehicles

a. | Payments

b. | Digital lending

c. | WealthTech

d. | InsurTech

e. | Neo-banking

2a

Payments

- 1. The payments landscape in India has evolved on the back of policies and new business models; expected to reach \$100 Tn in transaction volume by 2030**
- 2. FinTechs have converted market challenges into opportunities through a focus on continuous innovation**

In the future, we expect the following to be significant trends in the Indian context:

- 3. Innovation led by SoftPOS, NFC and CBDC**
- 4. SuperApps by both FinTech and non-FinTech players**

1. Payments industry has been evolving on the back of policies and new business models, expected to reach \$100 Tn+ by 2030

RBI's Vision 2019-2021 for payments ecosystem landscape

- 'Less cash' society and 'less-card' India, ensuring availability of safe and affordable payment systems and to serve underserved and unserved population
- Two-pronged approach: (a) exceptional customer experience; and (b) an eco-system to enable this customer experience

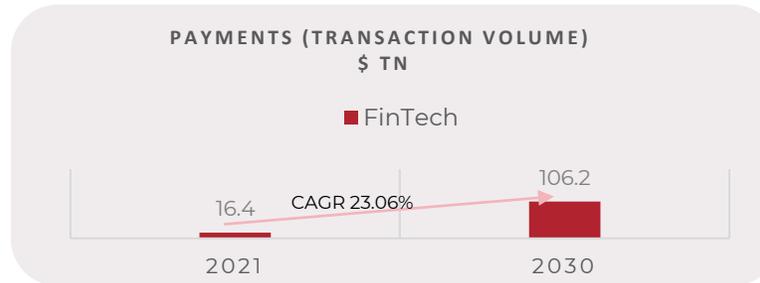


Outcomes

- 35%** Increase in debit card transactions at POS during vision period
- 4x** Increase in digital transactions from \$273 Mn (2018) to \$1.1 Bn (2021) (expected)
- 57%** Reduction in paper based clearing from 60% in 2010-2011 to 3% in 2019-2020
- 40%** Expected growth in NEFT over vision period (Dec 21)
- 14.8** Expected increase in digital payment transactions vis-à-vis GDP (at market prices) to 14.80 in 2021

Source: RBI report on Journey in the Second Decade of the Millennium

Payments industry expected to be \$106 Tn in flows and \$50 Bn in revenue terms in 2030



Source: Chiratae Analysis

India stack powering digital ecosystem



- Payments through Virtual Payment Address (VPA)
- Enabling P2P, B2B, and P2M transactions



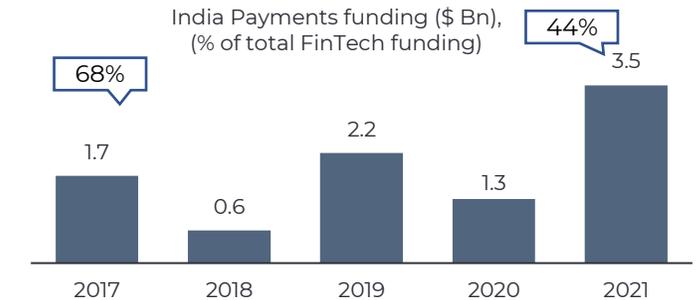
- Enabling transactions at POS and micro-ATM using Aadhaar
- 135 banks live
- 371.9 million approved transactions with 24.2 million eKYC



- Paytm, PhonePe use eKYC to upgrade their wallet users
- Eliminating insecure paper-based process and streamlining the delivery process

Source: NPCI statistics

India's total FinTech funding has been historically skewed towards payments



Source: EY Analysis

Payment players expanding beyond payments, unlocking new revenue streams for profitability

Category	Player	Revenue Stream 1	Revenue Stream 2
Wallets	Leading Indian Payment Player 1	Ecommerce	Payment gateway
	Leading Indian Payment Player 2	Insurance	Investing (MF/Gold)
	MobiKwik	Lending	Investing (MF/Gold)
POS/ Payment Gateway	Pine Labs	Consumer financing	Banking platform
	mswipe	Pay-by-link	Consumer financing
	Razorpay	Pay-by-link and ePOS	Merchant lending

2. Innovators have converted challenges into opportunities in the payments ecosystem

Challenges faced by players in payments ecosystem



Low penetration of traditional Financial Instruments

- ATM penetration rates 0.5X global average
- Credit card penetration at 0.025X in India compared to USA

Source: NASSCOM



Low profitability

- Reduced income for banks and PSPs as they spend more on upgrading IT infrastructure and capabilities to support the increased volume of digital transactions



Lack of customer loyalty

- Struggling to earn customers' trust without a physical brand presence



Cash preferring society

- Cash preference is still the biggest hindrance for digital payment providers. This is further fuelled by lack of adequate infrastructure and limited digital literacy in Tier 3 and Tier 4 cities

Key themes focused on by payment players to overcome challenges



Building best-in-class UX and investing heavily in customer success teams



Building robust data security programs and frameworks for fraud detection



Collaboration to reach untapped markets, modernize current systems, and allow digital solutions to provide a better user experience.



Increased focus on UPI-based apps Aiming for a one-stop shop for all payment solutions



Illustrative and non-exhaustive

3. Payment 4.0 innovation: SoftPOS, NFC and CBDC

SoftPOS and mPOS likely to increase penetration 2-4X

Considerable decline in physical POS machines
POS terminals (Mn)

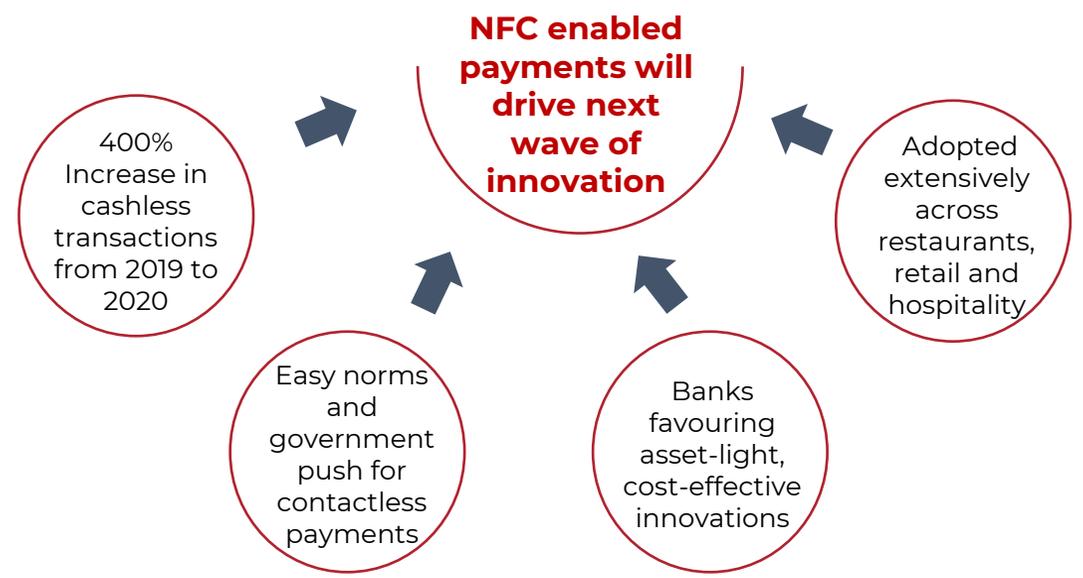


Source: Press articles

mPOS enabled through QR-codes has emerged as a low-cost acceptance option

Parameters	POS terminal	QR-code
Infrastructure	POS terminal cards	Smartphone
Setup costs	High	Very Low
Maintenance costs	High	Very Low
Transaction costs	0.4%-0.2%	0%
Settlement time	T+2	Real time

Source: HDFC securities



Industry players installing NFC-enabled contactless payment systems

- SBI NPCI** SBI partnered with the NPCI to launch 'RuPay SoftPOS' for Indian merchants
- Wear 'N' Pay** Leading Indian bank launched wearable contactless payment devices under the brand Wear 'N' Pay
- Xiaomi NFC-Pay Strap** Xiaomi launched NFC-enabled Mi Pay
- Tap to Pay** Paytm launched a Tap and Pay payment option

Digital currency, using blockchain and other technologies, is planned to be issued by The Reserve Bank of India, starting 2022-23. However, CBDC is yet to be introduced and its significance in payments will evolve over time



RBI to introduce **CBDC in phases and explore its use cases** but highlighted no plans to introduce cryptocurrency



India is the world's largest remittance recipient with \$87 Bn in 2021, the CBDC is projected to **encourage cheaper and digital remittances**



Retail payments: Where businesses and consumers can exchange CBDC between their account wallets



Offline payments: Caters to the needs of people living in areas without internet connectivity by serving as a secure mode of payment

Source: Ministry of External Affairs

4. While FinTech and non-FinTech players are building SuperApps to engage customers across wider product suite, regulatory challenges will need to be addressed

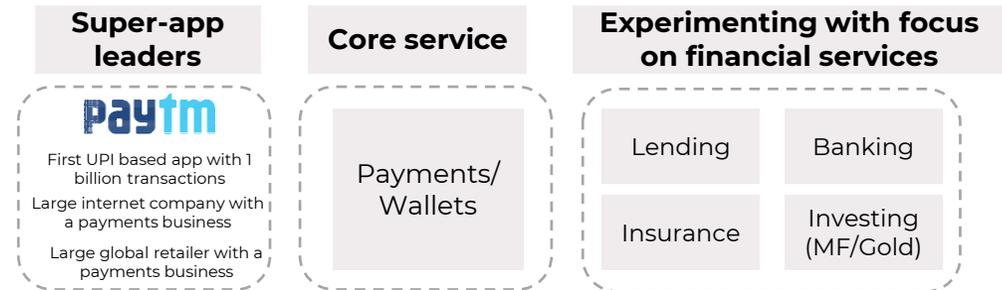
Payment apps seeking to be SuperApps in India

In-app features		paytm	Large internet company with a payments business	Large global retailer with a payments business	
Funding methods	Bank account using UPI	•	•	•	•
	Stored value wallet	•		•	
	Debit, credit card	•	•	•	•
Payment features	Send money	•	•	•	•
	Request money	•	•	•	•
	QR code payments	•	•	•	•
Bill payments	Recharge prepaid mobile phone plan	•	•	•	•
	Pay utility bills	•	•	•	•
	Pay credit card bills, insurance premiums and loan EMIs	•	•		
E-commerce, travel	Purchase groceries/merchandise	•		•	•
	Make flight, train, bus or hotel bookings	•	•	•	•
	Book Uber/Ola car rides		•		
Financial services	Buy gold	•	•	•	•
	Instant loan	•	•	•	•
	Invest in mutual funds	•	•		
	Buy insurance	•	•	•	•
Others	1Mini programs	•	•		•
	Chat with contacts		•		
	Check account balance	•	•	•	

Source: S&P global, EY analysis Data compiled July 17, 2021

— Illustrative and non-exhaustive

Existing players are attempting to experiment by focusing solely on financial services in order to boost client acquisition and retention rates.



Other players are now also trying to encash on the financial services FinTech wave and aiming for SuperApp



Other players are now expanding their FinTech business to scale and profitability

India's SuperApp revolution holds a huge potential for future as the country is moving into its next phase of internet consumption and digital economy

However, Super-apps are likely to face regulatory challenges like digital lending norms and data protection laws, as well as operational burdens due to high customer acquisition cost

* Based on news reports of BNPL model being under consideration at Swiggy

2b

Digital Lending

- 1. More than \$9.3 Bn in investments were made in digital lending in the last 5 years and the market is expected to grow to \$515 Bn by 2030**
- 2. P2P lending, SME financing, and short-term credit models are gaining strong momentum**
- 3. BNPL is revolutionising B2B credit and adding significant value to the B2B e-commerce space**

In the future, we expect

- 4. Co-lending to emerge as a marketplace model that supports lending partners to mitigate their risk exposure**

1. Digital lending clocked more than \$9 Bn in investments over last 5 years; expected to reach a \$515 Bn book size by 2030 on the back of product and business model innovations

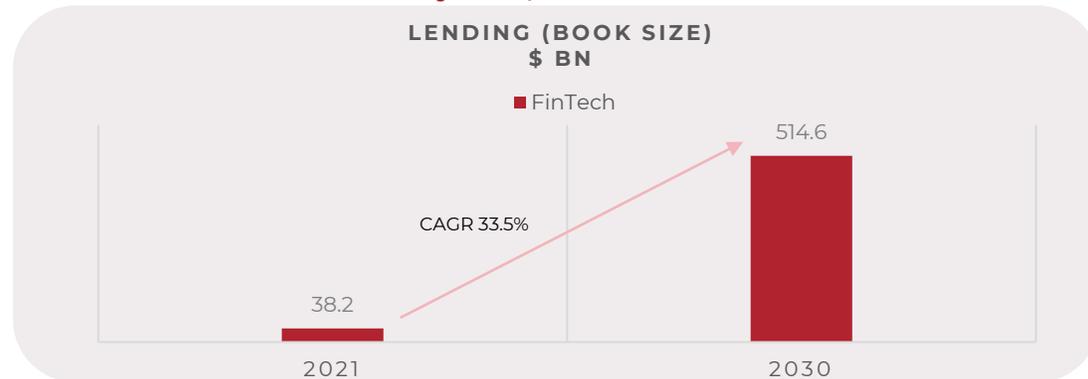
Digital lending recorded 3X growth in total funding since 2017



Major growth drivers

- Easy market entry and targeted loan offerings due to the availability of large sets of customer data
- Better margins than other FinTech business models, such as payments and other financial services
- E-marketplaces are shaping customer behaviour by offering lending products at the time of purchase

FinTech facilitated lending to grow by \$476 Bn, to reach \$514.6 Bn in book size by 2030, a 1231% increase



Source: Chiratae Analysis

Innovations seen in the ecosystem

New generation lending FinTechs powered by technology and data



Automated tracking of invoices and cash-flow management to fuel acquisition

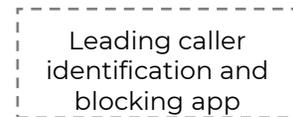


Enabling synergies in technology, data analytics and service capabilities



Tech-based tools, strong ML-capable risk analytics

Big Consumer tech entered into digital lending



Instant Loan Up to \$6,560 (₹5 Lakh)



Launched MiCredit offering loans upto \$1,312 (₹1 Lakh)



SBI-Ola initiative 'Ola Pragati' to offer car loans to drivers

SME financing through partnerships is the new focus area



Providing corporate customers risk-free solutions to manage working capital loans



Co-origination of loans for MSME sector



Supply Chain Financing solutions (SCF) to MSMEs

Illustrative and non-exhaustive

2. FinTechs are unlocking opportunities in digital lending through segment-focused digital business models

FS players expanding into digital lending

Players	Core service	Expansion
	Payments/Wallets	BNPL
	POS/Payment gateway	Merchant Lending
	Digital Banking	Lending
		Co-lending
	InsurTech	Lending
	WealthTech	Loans against securities

Illustrative and non-exhaustive

Increased adoption of API services has fuelled growth in embedded finance



Source: EY Analysis

Short-term and instant credit needs

- Players give users credit in a customized manner which allows them to make instant purchases
- Flow of money in the form of Flexi EMIs with shorter disbursements in hours or within a day or two

Target Market



Key Players



Opportunity

US: \$22 Bn
India: \$1.9 Bn

Source: Praxis analysis, *BNPL market GMV(in e-commerce)-2020

Supporting SMEs

- 63 Mn MSMEs and a large number of these tend to be informal, and witness working capital shortage
- NBFCs powered by FinTechs are paving a hassle-free route to providing faster and tailored credit products for SMEs

Target Market



Key Players



Opportunity

~ \$300 Bn
Credit gap

Source: Cornell college of business [Link](#)

High interest play e.g., P2P lending

- Facilitating borrowers to avail loans by connecting them with interested lenders (returns: between 12%-25%)
- However, the aggregate exposure of a lender is subjected to a cap of \$65,600 along with a certificate of minimum-net worth

Target Market



Key Players



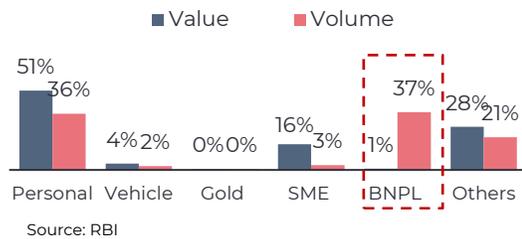
Opportunity

~\$10.5 Bn
by 2026

Source: India P2P Lending Market- Industry Arc- [Link](#)

3. Buy Now Pay Later is now mainstream and on an accelerated growth trajectory; emerging strong not only in B2C but also B2B payments space

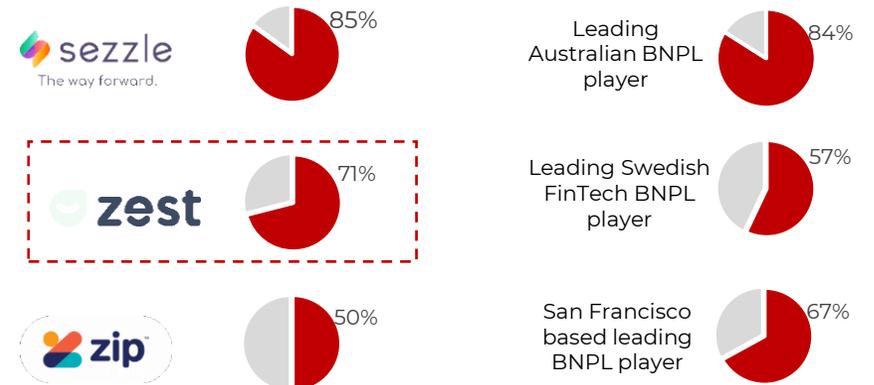
BNPL contributed to ~37% of retail digital lending by banks by volume in FY20



BNPL is in growth stage with significant runway ahead

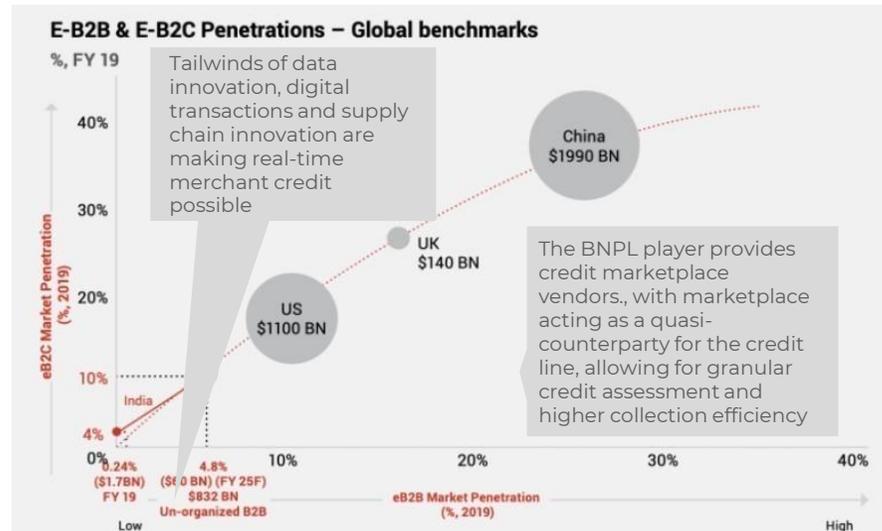


True foreign BNPL players follow a merchant-focused revenue model, and there are early signs of this in India with Zest generating 71% of revenues from zero-cost plans to Merchants



Source: Zest Money *Share of revenue from merchants

Low penetration- High opportunity



Source: Redseer Report (Unlocking Indian e-B2B Retail opportunity 2019)

Indian players passing on benefits such as zero-cost plans to B2B customers through partnerships and product launches

Market entry into BNPL B2B space

postpe BharatPe launched BNPL platform "Postpe"



Planning to roll out their BNPL platforms by the end of FY22, could shake up existing market

Business expansion aligned to B2B space

Razorpay walnut 369 Extended its BNPL solution, Walnut 369, to all Razorpay-enabled online merchants



Quick and digital loan with flexible payback conditions

4. Co-lending model evolution: moving away from FLDG

First Loss Default Guarantee(FLDG) model includes both lenders contributing to credit, resulting in significant operational risk and poor asset quality



Every new-age technology player offers a guarantee of around 5% of the loan book created through them

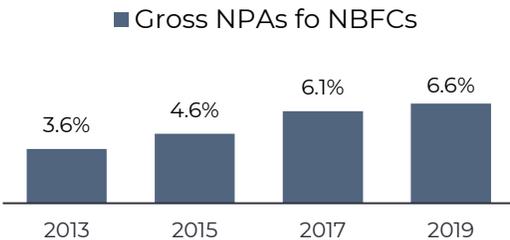


By offering this guarantee and servicing niche sections like freelancers and micro-businesses, these players managed to onboard banks and NBFCs



Covid-19 caused 10-15% of lender defaults, leading to counterparty risks and significant operational risks owing to lenders' increased reliance on third-party service providers

Gross NPAs of NBFCs is the worst in a period of six years



Source: RBI financial stability report

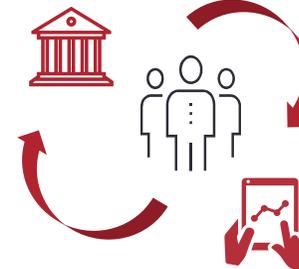
The FLDG model resulted in a strong backlash due to the undue risks taken by NBFCs in the pursuit of growth. This also resulted in massive credit squeeze and isolated credit downgrades

Co-lending is likely to evolve as a marketplace model that assists lending partners in mitigating their risk exposure



Capital partner/lender has more degree of control/participation

Based on the borrowers' profiles, the **bank/NBFC** (acting as a capital partner) might choose whether or not to participate in lending.



Borrower with credit profile (credit score/history, demographic data, repayment history)

FinTech provides risk management and technology support

Potential market changes



Improve credit flow



Better customer reach and integration of technology



Boosts growth, assets, and profitability

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WealthTech

- 1. The Indian WealthTech market is expected to grow to \$237 Bn by 2030 on the back of a growing base of retail investors**
- 2. A new set of innovators are building solutions for new and traditionally underserved investors**

As the market evolves further, we expect in the future that:

- 3. Algo trading while under a lot of regulatory prudence right now, is poised for growth**
- 4. New Asset classes, Crypto and NFT will continue to attract investor interest**

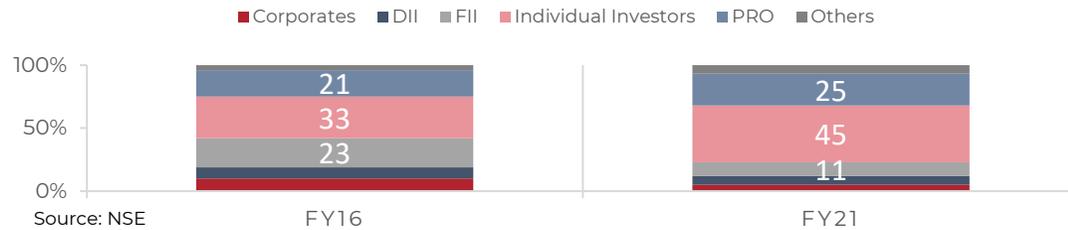
1. Indian WealthTech market expected to be \$237 Bn market opportunity by 2030

WealthTech opportunity is expected to increase many fold to reach \$237.4 Bn by 2030



Source: Chiratae Analysis

Over the last few years, share of retail investors in Capital Markets (NSE) has increased significantly to account for 45% of the market, this trend is expected to continue as the market matures



Source: NSE

India WealthTech funding \$ Mn



Source: EY analysis

WealthTech paving the way for growth of retail investor base



Surge in flow of money in stock markets across the globe: driven by liquidity due to government stimulus packages and increased discretionary savings during COVID lockdowns.



Growth in Indian WealthTech Market: Last 5 years have seen FinTechs emerging with focus on 'new-to-investments' (NTI) and 'new-to-workforce' (NTW) segments.



A huge upside potential: While NSDL had 25.5 Mn and CDSL had 58.5 million investors (as of Jan'22), only 2% of Indians invest in stocks compared to the US, where the number is 55%.



AMFI is targeting nearly **5X growth in AUM** to \$1.30 Tn (₹95 Lakh Cr) and **3X growth in investor accounts** to \$1.7 Mn by 2025.

Market is ripe for disruption



Favourable demographics with higher disposable incomes and **increased awareness** to financial wealth creation.



Increasing **digital adoption**, **low interest rate environment** in traditional assets and **supportive market forces** such as regulators and industry bodies.



Product and business model innovations to serve NTI and NTW customers.

2. New breed of innovators is building solutions for new and traditionally underserved investors

Examples of recently founded innovative WealthTech startups and their focus areas:

B2B solutions

 White label software/ analytics solutions



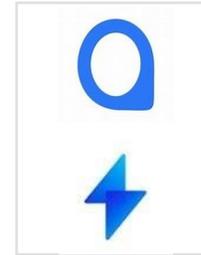
Full-stack wealth-tech platforms for financial advisors

 Cap Tables



Automate share issuance processes, and provide mechanisms to track and certify cap tables and manage transactions

 Algo trading



Enabling super fast volume trading based of strategies defined in algorithms

 Alternative asset enablers



Tech solutions for FinTechs to help them move traditional financial products and assets to blockchain

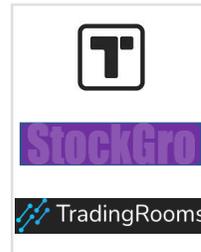
Retail focused

 Underserved-focused



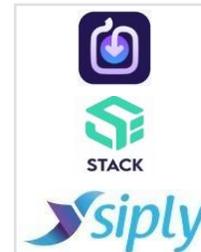
Tailored financial solutions to the informal sector

 Social/ copy trading



Social trading platforms where users can follow experts, discover new strategies in near real time

 Automated, Micro-investing



Investing spare change into mutual funds or other relatively safer options like digital gold

 Alternative investments



Fractional investment model for retail investors to own commercial real estate, startups, physical assets that earn lease income

Illustrative and non-exhaustive

3. Algo trading is under increased regulatory oversight but poised for growth

Regulators are likely to strike a balance between investor protection and access to innovative tools



SEBI aims to prevent unregulated/unapproved algos that pose a market risk and can be misused for systematic manipulation.

SEBI has proposed to consider all orders emanating from an API to be treated as an algo order and be subject to control by the stockbroker.



Each Algo strategy, whether used by broker or client, would need to be approved by exchange.

Brokers will need to deploy suitable technology to ensure appropriate checks for preventing unauthorized altering or tweaking of algos.

SEBI's guidelines would further push tech players for better integration with broker platforms for strategies verifications.



Prominent algo trading players



MetaTrader 5



NINJATRADER
Architects of Electronic Trading Innovation



AmiBroker



Streak™



SQUARE OFF



IPHI ONE



algotbulls®



Arthalab Solutions
Journey to Financial Nirvana

4. Focus will be on new asset classes, crypto and NFTs



New forms of stock trading/ equity investing

Investor interest expected to be drawn towards copy/social trading, thematic portfolio strategies, and international stocks investments

Traders likely to connect their accounts with social/copy trading platforms to generate additional income and increase followership



It would be interesting to see how fantasy stock market platforms evolve in India over the next few years and how regulations influence their journey (e.g. Stocktry)



Anticipated growth of new asset classes

WealthTech will continue to add different asset classes to trade online. For example:



Fractionalization of real estate enabling retail investors to be owners of commercial properties. E.g. Strata, hBits, PropertyShare.



Few are experimenting with the usage of blockchain-enabled legal ownership of property (E.g., RealX)



Products such as Gold ETF, mutual funds, bonds (SGB) and futures are highly accessible, enabled by Groww, Zerodha, and ET Money like players.



Banks are also providing digital gold and MFs through their platform. E.g., HDFC's Digi gold



Market anticipates witnessing more traction for p2p players (e.g. LenDenclub, Faircent) offering attractive returns



Optimism for Cryptos and NFTs

By Dec 2021, India had ~\$20 Mn cryptocurrency investors with \$10 Bn in crypto investments

Although the regulatory stance is blurry, new players are emerging in the crypto and NFT space in India



Few crypto exchanges have indicated to position themselves as WealthTech startups, also dealing in equities (e.g. CoinSwitch), to provide a hedge in the event of a crypto ban

Emergence of mainstream virtual digital asset portfolio advisory is likely

Market is likely to witness more NFT traders and collectors given that the market is creator-dominated

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InsurTech

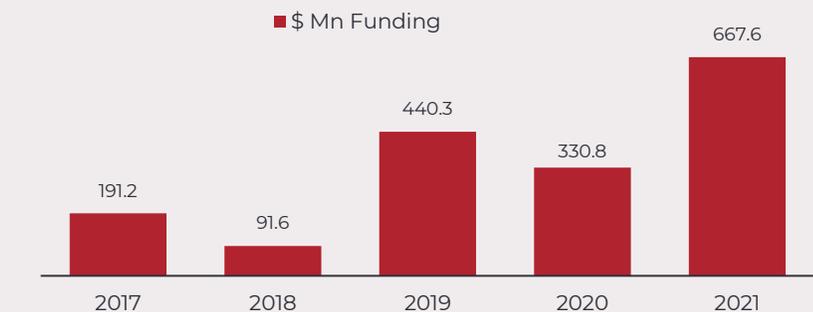
- 1. Owing to significant untapped opportunities and innovative InsurTech models, the space is seeing growth in funding and is expected to hit \$88 Bn in size by 2030**
- 2. InsurTech is expanding beyond discoverability and listing and tapping into opportunities across value chain whitespaces**
- 3. The space is currently evolving with a partnership approach, however, more positive changes may be in store with the current regulatory regime**

We expect in the future that:

- 4. Innovation in health InsurTech coupled with the government's digital efforts will fuel market growth**
- 5. A potential shift in focus from distribution to the availability of data for underwriting innovation**

1. Indian InsurTech space is witnessing growth in funding and market is expected to grow to \$88 Bn by 2030 on the back of untapped potential

India's InsurTechs recorded 2X growth in total funding



Source: EY Analysis

Highlights

- The general insurance segment has recorded strong growth with players like Acko and Digit Insurance witnessing big-ticket deals.
- Following global trends, India's InsurTech sector continues to mature, with the pace of late-stage investments and the number of \$10+ Mn funding rounds increasing considerably since 2014-2015.
- InsurTech has expanded beyond online aggregation into other categories such as underwriters, bite-sized or specialty insurance providers, analytics providers and health-related InsurTechs.
- Health InsurTech is a promising space with innovative offerings. Examples include packaged subscription-based plans (Onsurety, Kenko), TPAs in claims processing, payment support (Medi Assist, MediBuddy) and embedded insurance.

Source: I-IRDAI, EY Analysis

Indian InsurTech space is growing

36% CAGR in InsurTech funding (2017-2021)

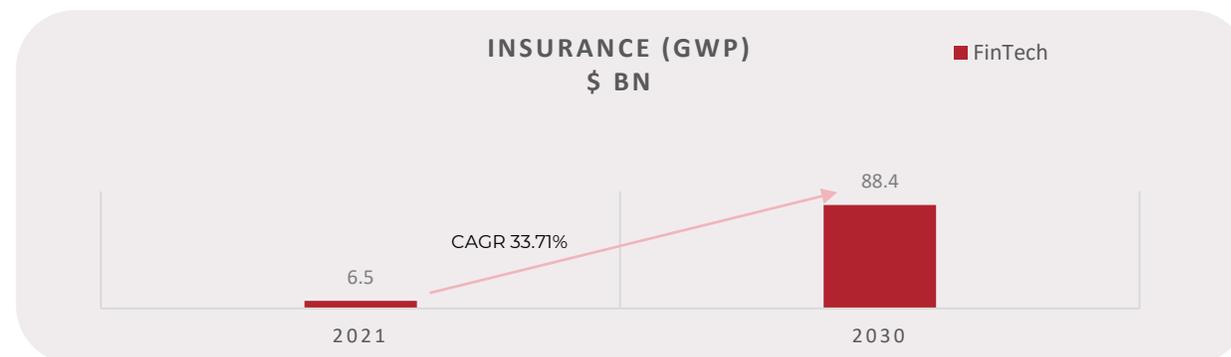
\$1.7 Bn InsurTech Cumulative Funding (2017-2021)

InsurTech Unicorns

Aiming for big market opportunity¹ (2020-21)

	Life (24 Cos.)	Non-life (32 Cos.)	Total
Penetration	3.2%	1.0%	4.2%
# new policies issued (FY 2020-21)	28.1 Mn	246.7 Mn	274.8 Mn
#Offices	11,060	11,248	22,308
Market share of PSUs (%)	64.1%	37.2%	57.6%

The InsurTech market is expected to grow by ~15X to reach \$88.4 Bn by 2030



Source: Chiratae Analysis

2. InsurTechs are expanding beyond discoverability and listing, tapping into opportunities across value chain whitespaces

Key drivers of growth



Large untapped market opportunity

Low penetration at 3.8%, as of 2019, along with **lack of healthcare access to ~30% of the Indian population**; mainly in the middle-class segment



Increase in awareness, post COVID-19

Superior accessibility due to online distribution, competitive pricing, simplified policy terms and **increasing awareness**. E.g., Digit Insurance recorded an increase of ~2X in the number of health covers sold between 2020 and 2021



Rising share of digital

Web-aggregator platform, Policybazaar, reported a **jump of 20-30% in its health insurance-related enquiries in March 2020**. National Health Stack by the Indian government is also likely to play a key role in further increasing digital adoption

A hotbed for product and distribution innovations

Insurance underwriters/manufacturers

Leading zero commission and zero paperwork insurance provider



Digital insurance company, providing general insurance products

Offering competitive auto, travel, property, and health insurance

Health-related InsurTechs



Group health insurance solutions to SMEs and start-ups

Health and wellness packages for businesses

Subscription-based health-insurance policies

Bite-sized or gig-economy-focused insurance



A micro-insurance company supported by multiple traditional insurers

A gig-economy focused InsurTech player

Serves gig and essential services workers to smooth uneven cash flows, stabilize incomes, and access savings and insurance

Analytics and API solutions



AI-based self-service chatbot, AI-based workflow automation, and intelligent lead management services offered to traditional insurers.

API-driven "Insurance-in-a-Box" allowing any organisation to offer any insurance product from any insurer.

Claims management



Claim Buddy offers tech-backed end-to-end management solution for hospitals to process claims

Claim Therapist provides online health insurance claims management for individuals

Source: Economic Survey 2020-21; NITI Aayog; Crunchbase; Jefferies

Illustrative and non-exhaustive

3. While traditionally the industry partnership approach weighs, under the current regulatory regime progressive changes expected

“ We are thinking of allowing micro insurance player with Rs 10 crore or Rs 15 crore capital which can work in focus areas like a district.....Regulations will be principle-based, rather than rule-based. The idea was that the industry has matured enough during its journey spanning more than two decades since its opening up and they know the rule of the game better now. ”

- Debashish Panda
IRDAI Chairman on the number of guidelines from 100+ to 10-15 and reducing the minimum capital requirement bringing down from \$13 Mn to \$1.34-1.96 Mn

The InsurTechs in India have evolved more in a partnership form



Partnerships are a win-win for InsurTechs and incumbents in terms of faster go to market and serving untapped segments



Insurers reach their customers with better digital services and manage customer experience effectively¹



InsurTechs get partners' license to overcome the regulatory hurdles

Examples in the India context

New products backed by incumbents:

Toffee launched a subscription-based bundled insurance product combining health, life, and household insurance needs in 2020.



Digital capabilities augmenting InsurTechs

Mantra Labs partnered with Religare (now Care Health Insurance) to help implement contactless customer centres during COVID-19, Self-Help mobile app to offer a simplified digital insurance journey to its customers

Distribution agreements

Turtlemint has signed distribution agreements with multiple life insurance firms, such as HDFC Life, Bajaj Allianz, Kotak Life – to distribute their insurance products

GramCover, has entered into a partnership with multiple life and non-life insurers, such as Royal Sundaram, SBI Life, HDFC ERGO, to provide insurance for crops, livestock, health, motor and life

Source: 1 – [State of AI in insurance](#), Company websites; News articles

4. Health InsurTech is expected to deliver strongly on the back of digital push and focused innovation

Top Indian health InsurTechs with highest funding received in 2021-22 (\$ Mn)



Innovation being explored by Health InsurTechs:

- A key differentiator comes from the innovation undertaken in distribution to attract retail customers and SMEs through easy-to-purchase plans, with a higher degree of customization rather than offering run off the mill insurance plans
- Focusing on offering coverage for additional expenses, including OPD expenses, which is being offered only now post COVID by traditional players
- Providing additional services such as doctor consultations, health check-ups and mental wellness sessions

Examples of innovation being done in the market by players

Packaged subscription-based plans

Onsurity: healthcare plans to SMEs, MSMEs, and start-ups, packaged in monthly health memberships

Kenko: subscription-based healthcare plans for individuals and SMEs

TPAs in claims processing and payment support

Medi Assist: digital platform simplify the claim process and function as a mediator

MediBuddy: provides a digital healthcare platform with health services such as doctor consultations and lab tests

Seamless insurance through embedded insurance

MakeMyTrip teamed with GoDigit to offer embedded COVID-19 insurance

With another major insurance player, a leading Indian multinational chain offer hotels with complementary health insurance coverage during the stay

A digital push by the government within health insurance is adding to the tailwinds

- Government institutions such as NITI Aayog are supporting the transformation of the health insurance industry
- NITI Aayog pointed out that integrating digital and distribution would bridge the penetration gap by increasing affordability
- National Health Stack (NHS) proposed by NITI Aayog to standardize operations and reduce costs is also likely to help reduce the protection gap

Source: Economic Survey 2020-21; NITI Aayog; Crunchbase; Jefferies

5. A shift in focus from distribution to availability of data for underwriting innovation and risk-reward sharing

Value Chain transformation

Originally the focus for InsurTechs has largely been on distribution innovation; however, these firms are gradually coming up the curve with a greater focus on other value chain elements

- Indian InsurTechs are now developing new usage-based pricing models and improving claims processing efficiency e.g., Verak, ABI Health, RoadZen, Sureclaim
- InsurTechs focusing on utilising AI/ML, wearables (GoQii), telematics, and behavioural economics (Trak n Tell, CarlQ, Vymo, Aureus, Arya.ai) to offer personalised insurance policies, speed up enquiry resolution and improve the client buying experience
- Insurance players are likely to break the silos of distribution and manufacturing and collaborate for innovative risk-reward sharing models, as has been witnessed in lending.



Data fuelling underwriting innovation

InsurTechs are using data from third-party data providers and IoT devices to enable innovation across multiple insurance products, focusing on two important factors: optimal pricing and increased risk prediction

- **Auto insurance:** Using IoT and telematics to collect consumer data and utilize AI/ML to determine optimal premium pricing based on driving habits. For example: CarlQ, Gypsee
- **Life insurance:** Accelerated underwriting by leveraging customer data and historical medical records to determine premium rates
- **Health insurance:** Prevention-focused approach through offering premium discounts to customers indulging in more health-appropriate behaviour, with data gathering enabled through IoT devices such as fitness trackers and customer's health records. For example, Niramai
- **Parametric insurance:** Leveraging technologies such as satellite imagery, IoT and weather-risk modelling to provide accurate insurance pricing based on risk insights. For example: CropIn, Agriculture Insurance Company, and Gramcover.



Future

Neo-banking

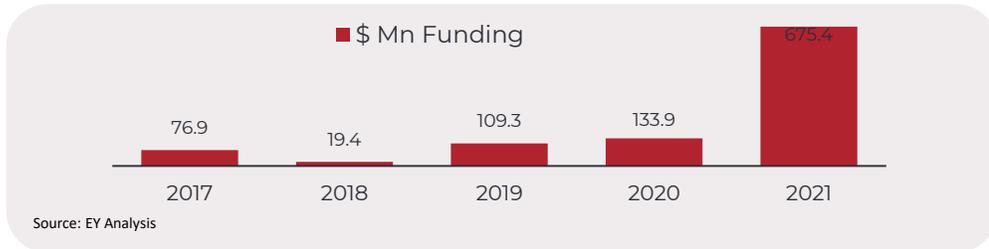
- 1. Neo-banking has seen a 5X surge in funding in just the last year and is expected to hit a \$215 Bn mark by 2030**
- 2. Neo-banks differentiate themselves by focusing on certain consumer categories or by providing better, more user-friendly tools**
- 3. Surge in digital financial services has attracted global neo-banking players and established domestic players, however regulatory hurdles to be expected**

The future trends swell into:

- 4. A full digital banking license is likely to be a reality in India**

1. Neo-banking has seen a 5X surge in funding in just the last year and is expected to hit a \$215 Bn mark by 2030

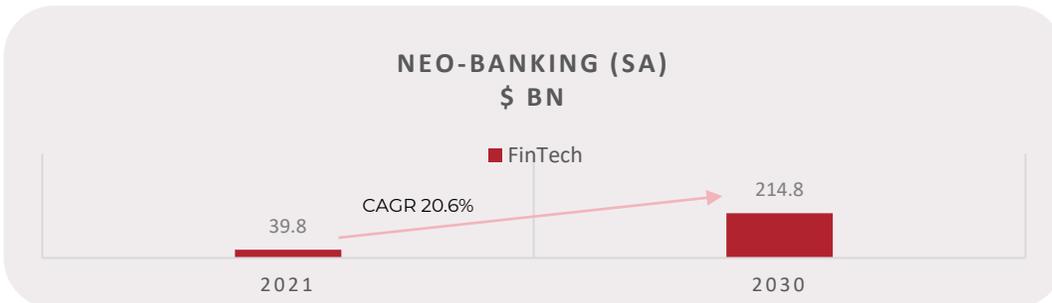
India's Neo-banking recorded 5X growth in total funding



Highlights

- Jupiter, RazorpayX, Niyo, and Open are just a few of the many neo-banks that have sprung up in the last two years by forming collaborations with licensed lenders.
- UK-based neo-banks Tide and Revolut plan to invest \$138 Mn and \$45 Mn, respectively in India; an indicator of the market's attractiveness for established foreign neo-banks as well

Neo-banking is expected to account for 20.6% of the market, a jump from 2.25% today by 2030



Drivers of growth

190 Million¹



Unbanked population

Unbanked population and niche segments present a large opportunity for neo-banks

- India has the 2nd largest unbanked population in the world at 190 Mn people
- Segments like MSME and Gig economy have long remained underserved
- Today, MSME loans and pay-out methods are the key offerings by neo-banks

48%²



Inactive accounts

Need for customer centricity

- Inactive accounts in India at 48% is ~2X of average in other developing economies of 25%
- Digital banking services from traditional banks have been product-oriented instead of customer centric
- Neo-banks help bridge the gap on engagement through a superior UI/UX



Technology sophistication

- Disruptive technology infrastructure, including AI, Biometrics
- Banking as a Service acting as a new model for revenue growth



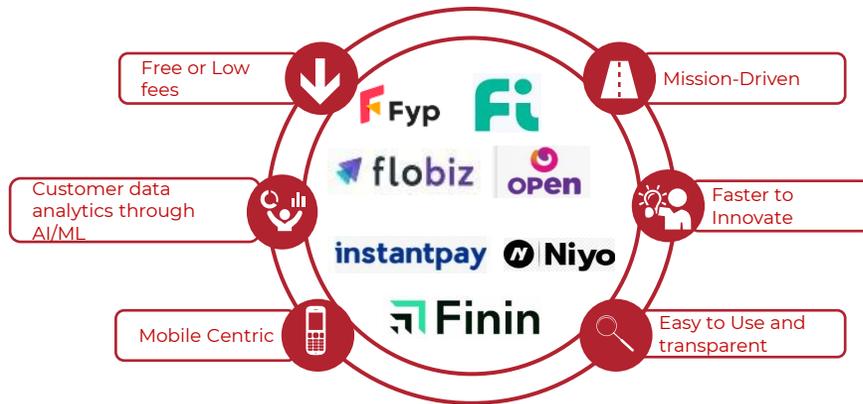
Embedded finance

- Enabling businesses in the MSME, B2C, and B2B segments to monetize their customer base for additional revenue streams

Source: 1,2-RBI report

2. Neo-banks are differentiating by targeting specific customer segments or offering better, user-friendly tools

Neo-banks compete with traditional banks based on mobile-centric technology along with more consumer-friendly solutions (easy-to-use, low fees)



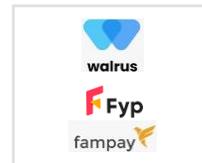
Market Segmentation: Target audience

For Millennials and GenZ



- High yield saving account
- Cards with no credit history
- Data-driven personal finance management

Teenagers



- Zero-balance or no fee-saving account
- Rewards and cashback programs
- Financial skills learning through bite-sized content

SMEs/MSMEs



- Current accounts with overdraft limit
- Working capital loans
- Tools to track spending, forecast cash flow

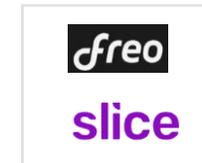
Rural



- Basic banking services(money transfers, cards)
- Simple and Affordable products

Market Segmentation: Revenue stream

Credit-led model (Credit line focused)



- Credit and EMI cards
- Buy Now Pay Later (BNPL) schemes
- Flexible credit offering

Saving-led model (Digital saving account)



- Payments infrastructure (IMPS/NEFT/UPI)
- Co-branded debit and prepaid cards
- Smart solutions like expense tracking

Technology and API driven



- Embedded banking stack: Payment collection, Expense management
- AI and ML-powered suites like Zeta Tachyon

Illustrative and non-exhaustive

3. Global neo-banks have entered the Indian market highlighting its attractiveness, but there are substantial hurdles ahead

Entry of global major neo-banks in Indian market

- Surge in digital financial services in India after the pandemic has attracted global neo-banking players
- Tide and Revolut have both entered the Indian market, currently forming relationships with banks and other players to kickstart operations
- Multiple multinational players likely to enter the market through acquisitions or by greenfield implementations

Revolut

tide

- An initial investment of \$45 Mn
- To hire 300 employees by 2022
- Build first product and engineering hub outside UK

- Initial investment of \$130 Mn
- To create over 1,000 jobs

- Cross border and domestic remittance
- Trading and Investment platform
- Digital bank
- Retail and B2B credit

- Administrative solutions including invoicing, digital ledger, taxation, payroll
- Digitize unorganised SMEs



Investment plans



Launch pipeline



Acquisition/Partnership

Impact of new banking initiatives in Budget 2022



75 digital banking units are to be set up by scheduled commercial banks.



1.5 lakh post offices are set to be connected to the core banking system in the FY 2022-23.



Impact



More credit to rural regions in an efficient manner

Stimulate financial inclusion and economic development at the ground level

More liquidity (deposits) pools and a new consumer base for banks

Neo-banks are likely to face tough competition in the long run from digital units and other strategic initiatives of incumbent banks



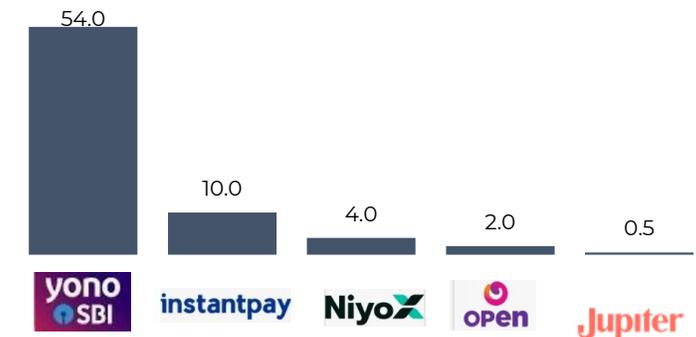
Innovative offerings by traditional banks.



Licensing dependency on traditional banks; while neo-banks can offer front-end for customers, the core backend operations need to be managed by banks.



Huge customer base: SBI's digital-only arm YONO leads the neo-banking club in terms of monthly active user ~ 54 million.



Source: Press articles, Company websites

4. As policymakers scale-up efforts, a full digital banking licensing model likely to emerge in India

Regulators like RBI and policy makers scaling efforts to cater to digital banking needs

\$344 Bn
(₹25.8 Lakh Cr)

Credit gap in MSME growing at a CAGR of 37%



High operational cost structure of traditional banks



NBFCs unable to raise funds despite solving underwriting problems



RBI is likely to issue digital banking licenses but not for all segments, mostly for those focused on SMEs, as they address SME financial failure

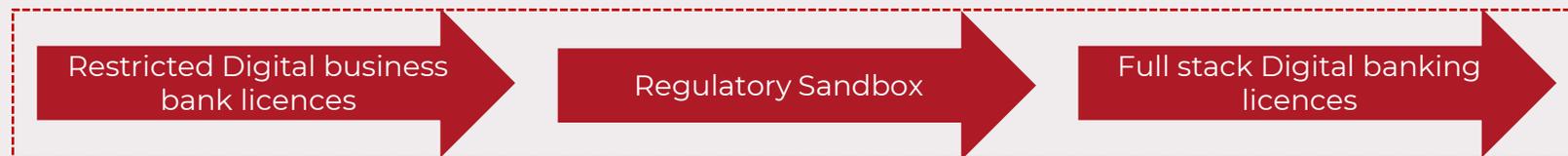
Regulators likely to follow the global licensing suit

Discussions on digital bank licensing and payment banks: A chance to become a full-stack bank

NITI Aayog proposed a three-step licensing process. These FinTechs would be first given a restricted digital business bank licence and then be allowed to operate in a regulatory sandbox.

After the FinTech meets requirements like minimum paid-up capital of \$2.624 Mn (₹200 Cr), it can be extended to a full-stack digital business bank licence.

Three-step process to finally acquire a full-stack digital banking licence



Source: NITI Aayog Discussion paper

3

Key Trends in Supporting Ecosystem

a | Regulatory environment

b | Metaverse - impacting physical engagement

c | Financial Inclusion

d | India as a hub of FinTech & Talent

e | FinTech becoming a horizontal

3a

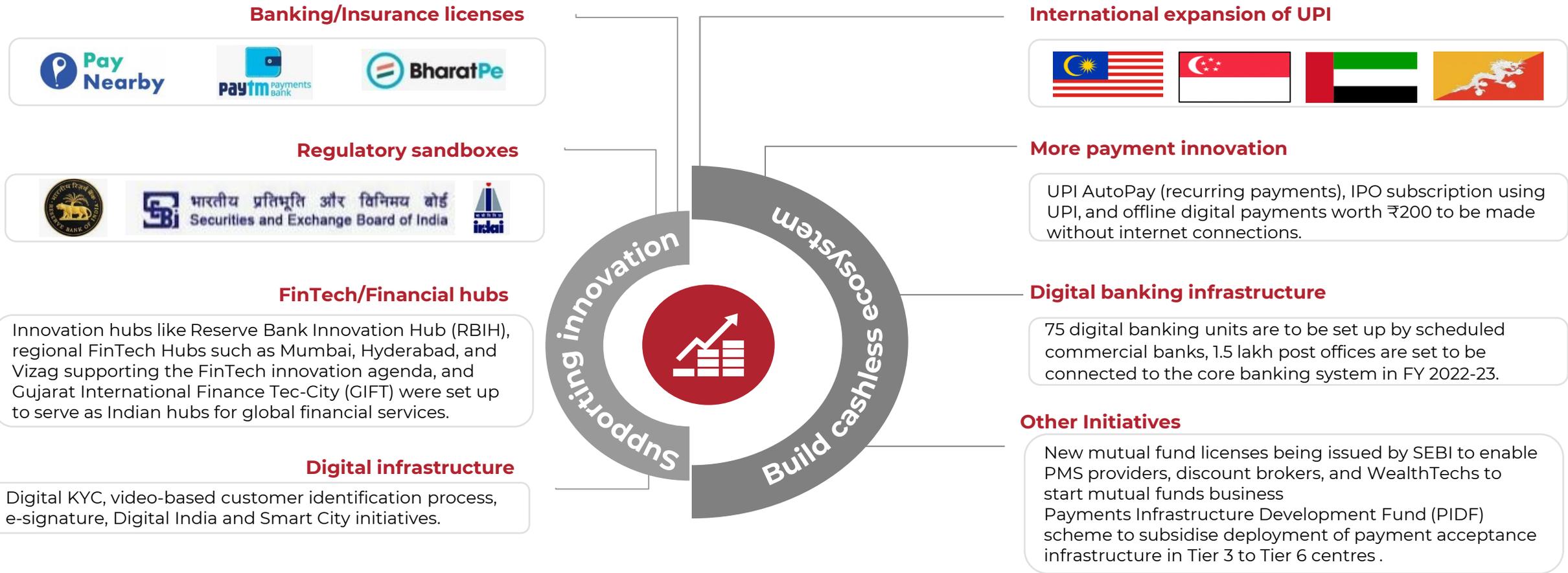
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Regulatory environment

- 1. Regulators are actively encouraging innovation through regulatory sandboxes, new distribution models, and the launch of innovative products**
- 2. We anticipate regulators to continue pushing for a digital agenda while maintaining a balanced regulatory oversight**

1. A pro-FinTech regulatory environment is unlocking innovation and access to market



2. Regulators are likely to continue to push for digital agenda and keep a balanced regulatory oversight



More digital push

Digital banking licenses

RBI might follow measures taken by other APAC nations (Singapore MAS and Hong Kong HKMA), and begin rolling out virtual banking licenses.

Global initiatives driving new offerings

The MAS and the RBI integrated Singapore's PayNow and UPI. This linkage is likely to generate new offerings such as cross-border remittances and B2B payments.

CBDC could be as disruptive as UPI

RBI launched new FinTech Department, currently focused on CBDC launch. The department will also monitor fast-emerging crypto segments such as DeFi, NFTs, and metaverse.

Continued focus on Financial innovation

Continue to offer a pro-innovation policy environment through innovation hubs, regulatory sandboxes and innovation incubators/accelerators to create and test applications/APIs.



A balanced regulatory oversight

Continued focus on data protection, and consumer privacy

Solutions like tokenisation and encryption reflect the strong focus of RBI on data protection and consumer privacy in the near future.

More data localisation norms would increase accountability and compliance practices.

More usage of RegTech

Regulators are to explore use of tech-stack that includes cloud, SaaS and AI/ML, facilitating the delivery of regulatory requirements more efficiently and effectively than existing capabilities.

"Introduction of Central Bank Digital Currency (CBDC) will give a big boost to the digital economy. Digital currency will also lead to a more efficient and cheaper currency management system. It is, therefore, proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting 2022-23," – FM Nirmala Sitharaman

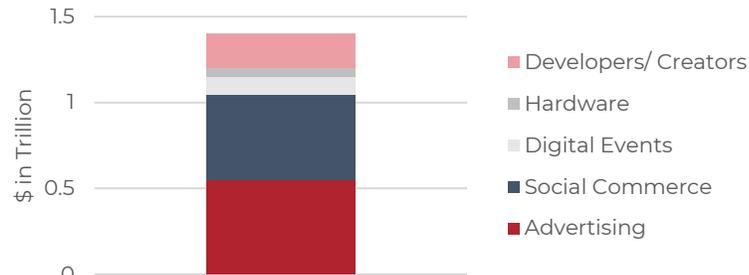
3b

Metaverse

- 1. Global Metaverse is still nascent with a significant runway ahead**
- 2. FinTechs are innovating to tap metaverse business opportunities across segments**
- 3. While global BFSI players are carefully exploring metaverse use cases, Metaverse is yet to be a reality in India**
- 4. Many Indian firms are aligned with the metaverse and DeFi domain, yet working in silos**

1. Metaverse – a nascent global \$1.3 Tn opportunity

Metaverse is a global ~\$1.3 Tn opportunity



Source: [Grayscale Metaverse report](#)

Metaverse in the BFSI context

- Metaverse is a collection of virtual space and objects enabled by blockchain, augmented reality (AR), virtual reality (VR), and Web 3.0 players.
- Metaverse is a parallel economic system poised to thrive on the growth of decentralised finance (Defi).
- This finance angle to metaverse is a construct of Web 3.0 building blocks and different interface elements called verses which include protocols, products and services enabling complex financial interplay between fungible and non-fungible tokens (NFTs).

MetaFi – combining verses, protocols, and DeFi tools

Foundation layer:
Includes coins and next-generation protocol for trading NFTs. For example, Polkadot, Polygon, Solana, ETH, and Immutable X.

Finance layer:
Includes Defi apps and related protocols (e.g., Uniswap, Synthetix) and blockchain oracles – third-party services that connect smart contracts with the outside world (E.g., Chainlink, BAND, Tellor).

Interface (verses):
Includes virtual worlds (e.g. Decentraland and Sandbox) that provide social experiences, games, avatars and identity creators and marketplaces (e.g. OpenSea, Rarible) that allow creators to mint the NFTs.
The role of NFTs is to enable content creators to develop metaverse environment objects and collectibles. Here cryptos are used to charge gas money to mint, buy, and sell content.

Metaverse economy enablers

Crypto wallets and Metaverse access:



Marketplaces to buy and sell digital assets



NFT/blockchain developer services (creators)



Illustrative and non-exhaustive

2. FinTechs are innovative in tapping metaverse commercial possibilities

Examples of FinTech players' metaverse initiatives/offerings include the following:



Blockchain and crypto players are solving digital identity and payments for metaverse commerce. E.g., **Coinbase** is working on a unique ID across different worlds in the Metaverse.

Traditional payment players are also experimenting. E.g. **Mastercard** unveiled an AR app that offered cardholders a virtual tour of three reward categories in 2020.



Crypto exchanges, like **WazirX and Coinbase**, are quickly creating NFT marketplaces.

Brokerage firm **eToro's** MetaverseLife offering - a new smart portfolio that gives investors exposure to the enabling platforms – such as Meta Platforms and Roblox – as well as cryptocurrency and blockchain-based platforms like Decentraland and Enjin.



Using social reputation and digital assets as collateral

Indian Crypto lending player **Sublime** can verify user digital identity through their profiles on sites like Twitter, Github and Instagram, staking customer reputation as collateral in addition to NFTs, cryptocurrencies, or other blockchain-based assets.



DeFi InsurTech players enabling cyber and digital asset protection cover are already aligned with metaverse opportunities. E.g., Nexus Mutual, and Aigang Network.

Etherisc, Sweetbridge, Celsius, Nexo, Libra Credit, and others established a [consortium](#) that safeguards and secures collateralized crypto-backed loans.

Benefits of DeFi insurance

- Protection of DeFi deposits
- Protection against crypto volatility
- Immediate redemption of tokenised crypto
- Protection against the risk of theft and attack on crypto wallets
- Protection of funds from exchange hacks
- Collateral protection for crypto-based loans



Lynx Global, a provider of a full suite of financial services products in the Southeast Asian market, has announced the extension of its offering to the Metaverse.

3. While global BFSI players are cautiously exploring the metaverse use cases, India is yet to start

Banks

Virtual digital worlds/games are not new for banks. In the past, ABN Amro and ING, opened virtual financial centres in Second Life (a virtual world social platform but centrally owned).

Banks are not self-isolating from this massive economic activity and exploring how they can become a part of this market. As of now, very few examples are available:



HSBC has bought a plot of LAND in metaverse 'The Sandbox'. The bank plans to use the plot of land to engage with sports, e-sports, and gaming fans.



JPMorgan's recent launch of [Onyx Lounge](#) in Decentraland is an example of associating the bank with the trend



Shinhan Bank has partnered with KT Corp, to integrate their financial infrastructure into the metaverse platform, allowing users to earn rewards when they transact with third-party brands and partners. Shinhan is also exploring the possibilities of a commercial real estate service in the metaverse.



Another Korean bank [KB Bank](#) is experimenting with bank branch experience in the metaverse. It will allow customers wearing a head-mounted VR device to access banking services in a metaverse.

Wealth

Virtual lands and NFTs are emerging as an alternate asset class. JP Morgan's [paper](#) on Metaverse points out that the virtual real estate market could start seeing services much like in the physical world, including credit, mortgages, and rental agreements.

Though distant and unclear with legal standing on cryptos in India, the market has an opportunity with virtual/cryptocurrencies and digital asset-backed financing and mortgages through using lending models or leveraging decentralised finance (e.g., NFT-collateral backed virtual world mortgages).

CSOP's move is a prominent global asset management example.



Hong Kong based CSOP Asset Management has launched CSOP Metaverse Concept ETF.

Insurance

In an Insurance context, Metaverse is yet to solve the riddle (and opportunity) around how to ensure Metaverse-related physical and digital assets and protection from intellectual property crimes, among other themes.

Metaverse also presents implications for insurers in terms of client interaction experiences and the evolution of the agency business from agency 2.0 to agency 3.0 - which uses AR/VR to facilitate advisory, onboarding, and claims.



Usage-based insurance broker [Hubb](#) is hosting regular meetings on Horizon Workrooms to offer clients new and adaptable ways to work. Hubb is also using the Metaverse to engage with some clients.

4. Many Indian startups align with metaverse and DeFi space but are still in silos. Core FinTech category players* are yet distant from this market

Indian startups in the metaverse ecosystem include NFT creators, marketplaces, crypto exchanges, protocol developers, and some Indian versions of Metaverse games.

NFT players
IndiGG
Hyy.pe
Lysto
Strip Finance
Totality Corp
Trace Network
AcknoLedger
NFT Alley
BeyondLife.club
BollyCoin
Rario
Always First

Metaverse games
MetaLaunch
OneRare
Totality Corp
AcknoLedger
Doss Games
Atirath



DeFi startups
Unbound Finance (DeFi treasury)
Pontoon Finance
Sublime (lending)
UniFarm (staking)
Trace Network
Pontis
OpenDeFi



Cryptocurrency players
CoinSwitch Kuber
CoinDCX
Wazir X
Defy (social exchange)
Flint (passive crypto investing)
Kudo Money (lending)
Coinshift (crypto treasury management)
Bitcoin Growth Fund
Cypherock (hard wallet)



India's Metaverse can tap into the domestic demand as well as the global market opportunity. Consumption of video streaming and gaming in India has been increasing at a phenomenal rate. Reports suggest that the country's gaming market is likely to triple in size to \$7 Bn by 2026. Metaverse, as part of this industry, is likely to capitalise on the novelty and buzz.

Source: Redseer report

“India will hugely contribute in building Metaverse”
 – Mark Zuckerberg

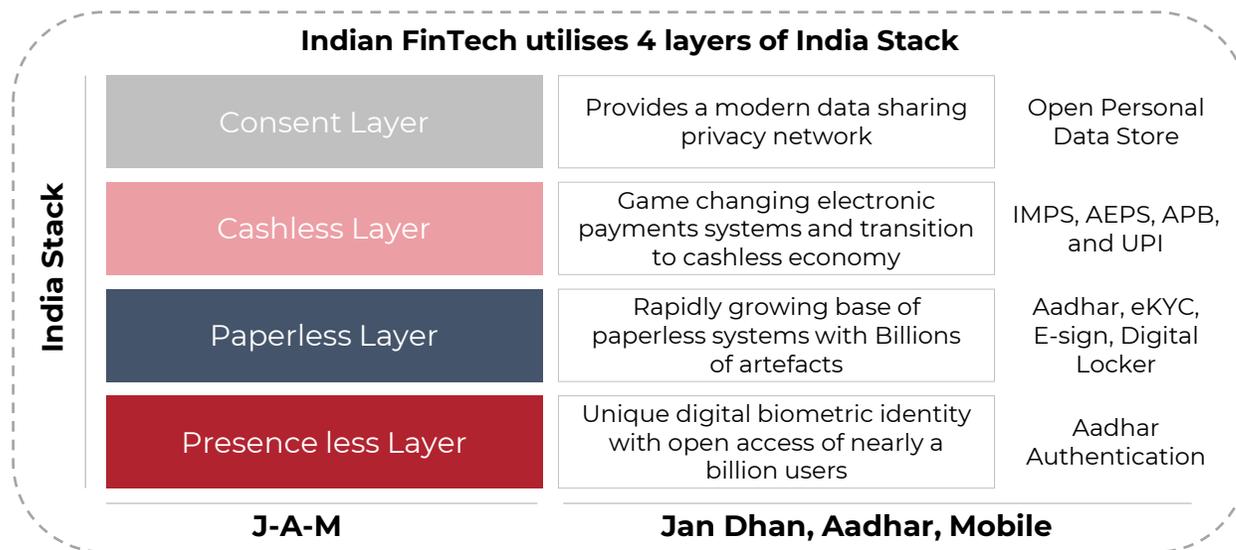
Note: Non-exhaustive list. Some players are duplicated across themes since they are suitable to fit in multiple categories. Core:* Payments, lending, InsurTech, Wealth, Neo-banking

3c

Financial Inclusion

- 1. The India stack and FinTechs are catalysing the way for financial inclusion**
- 2. Bite-sized products are being developed across lending and insurance**
- 3. Innovative solutions are being deployed to serve Tier 3+ market**

1. India stack and innovation by FinTechs has powered the financial inclusion drive being witnessed in the country



New smartphone-savvy users exploring tech-based financial tools for the first time can be signed up at fraction of the costs based on their digital identities, thanks to India Stack.

FinTech startups are playing an important role in both :

- Bringing people to the financial mainstream
- Giving people methods and opportunities to improve financial well-being

Catalysts for FinTech adoption in Tier 2+

- Digitally-savvy population with high internet penetration
- Ability to target and service niche customer segments with tailored products
- Lower operating costs for FinTech startups when compared with traditional banks and financial institutions
- Regulatory landscape for FinTechs is in an evolving stage
- Product development for FinTechs can be done by agile approach with less bureaucratic intervention
- FinTech product offerings to assist in the management of formal and informal SMEs for tax planning etc.

The Tier 2+ financial services landscape has transformed significantly with the emergence of FinTech, helping create more opportunities for the unbanked population. This transformation has been significantly aided by the products built on India Stack:

 <p>Payment Aggregators Onboard retailers to handle payments via UPI-based digital wallets and QR codes.</p>	 <p>Lending Business models around lending products for Tier 2+ customer segments like farmers, small businesses etc.</p>	 <p>Insurance With India's extremely low Insurance penetration in the Tier2+ market, FinTechs are building services like micro-insurance for these markets.</p>	 <p>Vernacular Support FinTech startups are reaching out to a whole new segment and including them in the financial system.</p>	 <p>WealthTech With slick mobile-native trading solutions and low cost portfolio advisory, platforms pull the youth workforce towards new investment avenues.</p>
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Source: USAID Report, EY Analysis

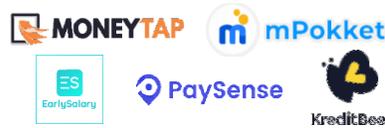
2. FinTech startups are developing bite-sized products...

FinTech companies are growing in underserved Bharat with bite-sized loan and insurance products, aided by infrastructural moats such as UPI and Aadhaar. This also contributes to the financial inclusion of a population that has hitherto been unable to access loans and insurance products targeted at the more affluent Tier 1 audience.

Sachet Lending Products

Instant Cash Loans

Small unsecured personal loans where the borrower's bank account is credited.



Buy Now Pay Later

eCommerce credit advances that may not be constituted as a formal loan.



Card less EMI

Credit extensions organised as a formal loan with periodic instalments for eCommerce transactions.



EMI Card

Credit cards with a pre-approved credit limit and a set payback schedule for the EMIs.



Peer To Peer Lending

These are small unsecured personal loans where the borrower's bank account is credited.



Sachet Insurance Products

Insurance Provider

Mobile Damage, TV and Appliance Repair, Hotel Stay Cover, Flight Delay etc.



Insurance Aggregator

Health Insurance, 2-Wheeler Insurance etc.



3. Innovative solutions are paving way to serve Tier 3+ market

Gaps	Solution Areas	Target Customer	Start-ups
Low financial literacy	Vernacular financial services/ apps to increase financial services penetration	Tier 2 population initiating financial literacy	 
Building a cashless economy	Merchant solutions for digital payment acceptance	Blue collar migrant workers in urban areas	 
Lack of acceptable identification	Implementing e-KYC and video-KYC facilities for Tier 2 and 3 segments	Banks, payment gateways looking to enable agent networks for onboarding	 
Lack of collateral for loans	Innovative underwriting, supporting working capital and asset purchase	Small business owners and women entrepreneurs	 
Lack of access to formal credit	Easier loan acquisition and access to markets	Farmers and Farmer Producer Organisations (FPO) in Tier 2 and Tier 3 markets	 
Lack of strong telecom networks	Amalgamation of payment types	Tier 2 and Tier 3 cities population with limited connectivity	 
High brokerage costs and low penetration	Doorstep demat account creation and ease in trading stocks	Passive investors, beginners, and seasoned professionals	 
Low insurance penetration	Microinsurance and collateral free loans	Farmers, small businesses and blue collar workers	 

Illustrative and non-exhaustive

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India as a hub of FinTech & Talent

- 1. India stack has been instrumental in steering the inclusion of millions of Indians in the digital economy & this experience of India stack is being expanded in foreign markets through partnerships as well as replication of the model**
- 2. India is seeing a dramatic rise to establish itself as a global blockchain & De-Fi Hub**
- 3. With the 5X growth in digital tech talent, India has the opportunity to address the global digital skill gap and establish itself as the destination of digital and tech talent**

1. 'India Stack' enables infrastructure for global growth..

India stack ushered millions of Indians into the digital economy. For the month of March 2022, the NPCI reported **5.4 Billion transactions**, amounting to **\$11.75 Bn (₹ 8,88,169 Crore)**, using NPCI's flagship UPI. UPI transactions **increased at a 785% compound annual growth** rate between 2017 and 2020.

Source: NPCI

Lessons to learn from India Stack

Payments as a public utility



India stack is based on the principles of openness, which allow authentication, authorization and clear messages to flow seamlessly between banks, intermediaries and customers, thus allowing payment infrastructure to function as a public utility with open standards and interoperability.

A framework that mandates interoperability among payment issuers to ensure the growth of the digital landscape.



Robust legal & regulatory framework

National Project & co-create



Conceptualize it as a national project with a conducive political climate and co-create with key stakeholders like banks, FinTechs, regulators, government & developers, and leadership team from both government & industry.

Enabling entrepreneurship, ease of doing business, innovation to thrive along with making it easy for consumers to go digital by offering increased convenience, a wide range of valuable services, and zero transaction costs.



Empower & Encourage

Holistic System Development



Approaches such as the India Stack are supporting not just open banking but open finance as well, with synergies across banking, wealth management, insurance, and other products across the world.

... and through reverse innovation, 'India Stack' experience can be taken to developing as well as highly developed markets

Expansion through Partnerships



-  **Partnership with PayNow:** In Sept 2021, RBI announced an agreement with the Monetary Authority of Singapore to allow cross-border instant money transfer by linking India's UPI with Singapore's PayNow. UPI is accepted at merchant locations to ease the transactions experience of Indian tourists.
-  **Partnership with LuLu Group International** will facilitate real-time remittances to India.
-  **Partnership with Mashreq Bank** will increase UPI P2P & P2M transactions in UAE.
-  **Partnerships with Merchantrade Asia** and its network will facilitate remittance to beneficiary banks in India via UPI.
-  **Partnership with Royal Monetary Authority of Bhutan:** in July'21 for use of NPCI's BHIM mobile payments app and adoption of UPI standards for QR deployment. This will enable BHIM-UPI acceptance at merchant locations.
-  **Partnerships with Gateway Payment Service & Manam Infotech** in February 2022 to deploy UPI in Nepal.



99.5%
Indians have Aadhar card



50 Mn
authentications done on daily basis for verifying various transactions


+

+


- The **Unique Identification Authority of India (UIDAI)** is looking to collaborate with foreign countries and international organisations to build digital identity systems worldwide.
- UIDAI is working with the World Bank and the United Nations to replicate the Aadhaar architecture in other countries in Asia and the West.

Replication of India Stack Model





Large internet company with a payments business



- Large internet company with a payments business has recommended the **United States Federal Reserve Bank replicate India's Unified Payments Interface (UPI) model** for its proposed inter-bank real-time gross settlement service (RTGS) called 'FedNow'.
- The CEO of this multinational company plans to apply their learnings from experience in India to global markets.



- NPCI is looking for global partnerships like regulators, large banks, FinTech companies, or payment organisations of respective countries, which can enable the acceptance through point of sale (PoS) terminals & ATMs.
- NPCI has tied up with International companies like Japan Credit Bureau, China Union Pay, and Discover to boost the RuPAY card scheme's international acceptance.



2. India as a global blockchain & DeFi hub

India is seeing a dramatic rise in establishing itself as a global blockchain and international DeFi hub.

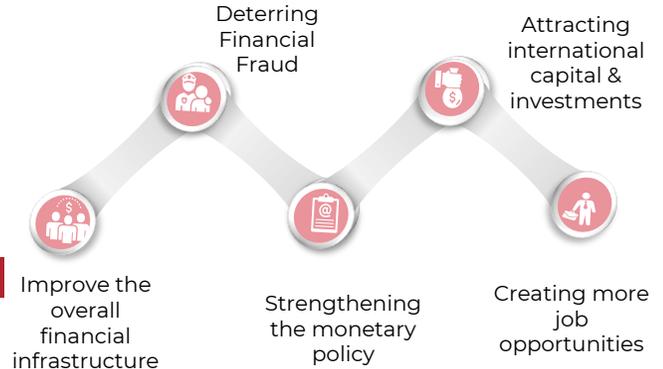


DeFi adoption in India sixth highest globally: with Crypto adoption rate seeing 880% growth from 2020 to 2021
Source: Chainanalysis



Growth in institutional investors: Large institutional sized transfers of over \$10 Mn accounted for 42% of transactions in India

Potential benefits for India



Growth drivers for India to become the next global hub of DeFi & Blockchain



Five-fold growth in India's digital talent, promising a strong people supply chain for DeFi players to set their hub in India. Green shoots with Nimbus & OKEx have already begun to set up their DeFi Hub in India.



Budget 2022 and way forward - FM's announcements on blockchain & setting up e-passports with futuristic technologies.



Increase in Crypto Investments - Investments increased from \$923 Mn in April 2020 to \$~6.4 Bn by May 2021 (exponential growth of over 400% in just one year).



Favourable Regulatory Landscape – Budget 2022 clarified that the Government doesn't treat crypto as a currency but as a virtual digital asset & will be classified as investments.



Large Young User Base – 40%+ users are in the age bracket of 18-34 years, followed by users in the age group of 35-44 years. Crypto users in India has skyrocketed to about 20 Mn. users in January, 2022.



Taxation on crypto assets - The announcement on taxation of crypto assets in union budget has boosted the morale of the industry and particularly new FinTech players.



Adoption of Cryptocurrency – After the Supreme court ruled out the RBI ban on crypto transactions, there was a massive increase in retail investors. Tier2 & 3 cities are at forefront of crypto acceptance.



India as next powerhouse of innovation – Budget 2022 sets the tone for establishing the country as a global powerhouse hub in terms of innovation.

Outlook for India

- Currently, India ranks second in the list of nations that adopt crypto the most, with over 9% respondents claiming they have traded in crypto.
- Standing 6th on the list of patents and trends in blockchain space with a total of 67 patents approved.
Source: World Intellectual Property organisation
- Investments in blockchain-based projects have touched over \$20 Bn across various industries.
- IndiaChain, a public project, will transform the functionality of public administration using blockchain for efficient and transparent distribution of government subsidies, streamlined record-keeping, systematic tax monitoring, and regulated supply chain management

3. India has an opportunity to address the 'Global Digital Skill Gap'...

14 G-20 countries could miss out on **\$11.5 Tn** worth of cumulative growth if the **digital skill gap remains unfilled**. The digital skills gap has hit an inflection point where companies are facing a new challenge in a digital-first world – **there are just not enough people with the right digital skills** to power their companies' transformation now and in the future.

Source: Salesforce

Understanding the global digital skill gap

Gap of 6 million between demand and supply of digital talent across eight countries including USA, UK, Singapore & China.

For **niche skills** in cybersecurity, data science, cryptocurrencies/ blockchain and augmented/ virtual reality, the gap could widen to **as much as 70%**.



The US had the highest gap (70%) while and the UK (57%).



In industry terms, **banking had the highest talent gap, 62%**; consumer products and retail 60% each; and insurance, 58%.



The survey found that **42% of** employees felt their organisations' training as 'useless and boring' and **52% of employees** were looking at massive open online courses, commonly known as MOOC, to upskill.

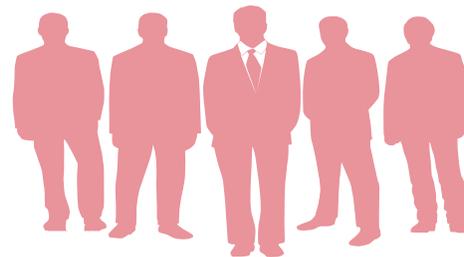
By 2026, the digital talent gap is expected to increase over 3.5 times

Opportunity presents For India

5x Digital-Tech Talent in India is growing **Five Times Faster** than the **Core-Tech Talent** in the industry. (2021)



2 million STEM these across all fields including graduated, post graduates & PhD students in 2021



63

Digital Readiness Score of India. Global average is 33/100.

72%

Respondents said they are actively learning digital skills.

66%

Respondents said they were equipped with resources to learn digital skills.

Source: Salesforce Global Index

India has an ever-growing talent pool

- India is predicted to have a **9 to 10 million** strong tech workforce in coming five years
- This comes in the form of 2.5 million STEM graduates entering the workforce annually.
- The trend indicates that India will continue to be one of the world's biggest talent markets and key for talent acquisitions for companies.

... and establish itself as *'The Destination'* for Tech talent

India has the potential to become the largest talent hub by harnessing the large talent base, infrastructural agility and favourable regulatory reforms. Union budget 2022 sets the tone for India's 'Techade' & establishing the country as a global hub in terms of technology and talent.

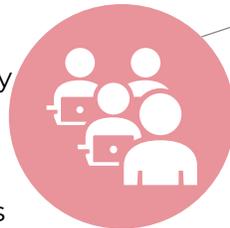
Budget focusses on digital skilling and encourages continual skilling avenues, sustainability and employability through online training programs, industry collaborations, as well as the establishment of skilling e-labs for simulated learning settings.



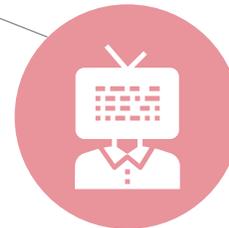
Digital university with a focus on ICT using a hub and spoke model that brings education under a central umbrella, making education more accessible and democratized.



Increasing the infrastructure for skill development across the country will eventually help address the global talent supply crunch & make India emerge as destination for Digital Talent. Use apprenticeship programs and learning-by-doing models. Invest in world-class free content by the government like SWAYAM.



Announcement of initiatives such as DESH-stack e-portal and the 'One class, one TV channel' that will help empower more suburban and rural citizens to get on board the digital bandwagon.



Industrial Training Institutes (ITI), which so far have focussed on providing training for blue-collar jobs, will now be offering courses for skilling across states enabling the tech readiness of India.

FinTech becoming a horizontal

- 1. Due to emerging technology, changing cultural trends and a favourable regulatory landscape, FinTech has been growing beyond boundaries**
- 2. Agri+FinTech is a massive opportunity for financing and lending**
- 3. Prop+FinTech has led to the exploration of new use cases with a strong focus on building online brokerage platforms**
- 4. In the Retail sector this intersection presents an opportunity for the local stores to tap a global audience while streamlining their operations efficiently**
- 5. Through the intersection of FinTech with the Health sector, the major gap of unaffordability in the HealthTech value chain can be addressed**

1. FinTech has grown beyond its boundaries

Financialization, or non-financial entities providing financial goods and services, have invaded our lives as a solution/strategy adopted by many major corporations, particularly those with huge ecosystems of consumers, vendors, and other stakeholders.

Factors paving the way for convergence with other verticals

Technology

- New Faas Technologies
- Intelligent Data Analytics & CRM
- Customer onboarding technologies

Culture/Trends

- Changing Perception of Trust
- Strong need for excellent Customer Experience
- Open Banks/FinTech startups.

Regulation

- E-money License
- Open Banking/ Baas
- Gray Areas/Banking Partner Legislation

Key drivers for the extension of FinTech vertical



New revenue streams / Expansion of market

- **Retail Banking:** Earning income through digital accounts, cards, loans, etc. to customers who are the end-users.
- **SME Banking:** Income through sale of POS, digital accounts, card, loan, etc. to the corporations' member businesses or workplaces in the marketplaces.
- **Others:** Purchase of insurance, cashing a check, the sale or use of other financial products.



Institutions want to reduce expenses and risks

- **Prevention of customer losses:** due to only a limited segment being served by traditional players today.
- **Including for those outside the banking system (Unbanked & Underbanked):** Preventing banks and Institutions from not providing services to all customers or not being able to operate this.
- **Financial Risk:** Minimizing the negative impact of expenses and commissions on the prices of institutions and financial services.

Emerging themes from the intersection of FinTech



A. AgriTech + FinTech



B. RetailTech + FinTech



C. PropTech + FinTech



D. HealthTech + FinTech

2. Massive opportunity for financing & lending in agriculture

AgriTech wants to leverage technology that can help businesses linked to farming run more smoothly. There is a strong potential for financial services to use data from drones, sensors, IoT-based monitoring, and satellite imaging.

30%

Farmers dependent on formal credit

\$220 Bn

FY22 PSL lending to agriculture

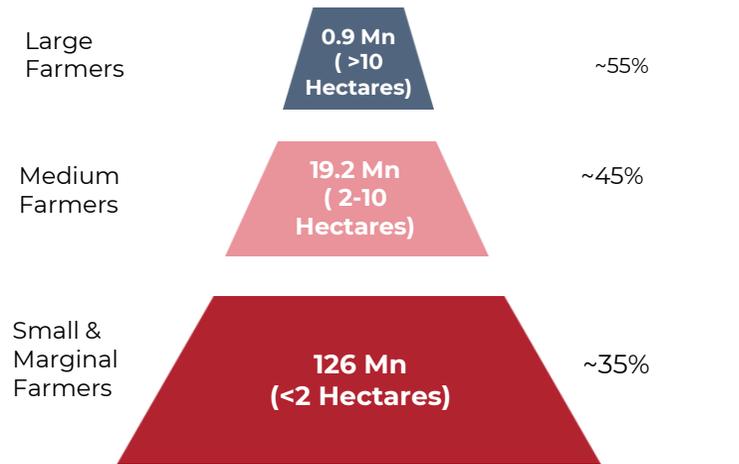
~50%

Small & Marginal Farmers unable to borrow from any source

Massive Opportunity for Financing & Lending



Breakup of types of farmers w.r.t landholding



86% of farmers are Small & Marginal Farmers without proper access to finance



Use cases

- Credit Integration and Part Payments
- Point-of-Sale Financing
- Credit Underwriting for players & suppliers across the value chain
- Alternative Credit Scoring (For better indicators)

3. Financial technology has the potential to streamline historically clumsy operations in Retail Sector

FinTech has contributed to the rise of e-commerce and simplified payments across retail, in addition to improving security and overall customer experience. Although digital acceleration is likely to be challenging in the world of mom-and-pop retail stores that are predominantly brick and mortar, the evolution of FinTech has the potential to help these stores to access a wider customer base online and make their operations efficient.

90% India's offline retail sector composition

4.6% Online Retail Coverage

~\$1.5 Tn 2030E Retail Market Size

10% Retail Market's contribution to India's GDP

Retail Market is largely unorganised with majority having offline presence

<1 Month Small & Marginal Businesses(SMBs) cash on hand

\$80 Bn Digital opportunity for SMBs

21% Mobile Shopping growth in next 3 years

~30% SMB's Contribution to Indian GDP

Huge potential to tap the needs for SMBs

 **Use cases**

- Cross-Border Payments
- Finances Management
- Easy financing solutions for Small & Medium Businesses
- Credit Integration and Part Payments
- Point-of-Sale Financing
- Credit Underwriting for players & suppliers across the value chain

4. FinTech startups have huge opportunity to tap into real estate investment opportunities

FinTech and PropTech startups worldwide are looking for ways to make it easier for people to pay their bills, borrow money, insure their properties, and transfer ownership of real estate assets, including buildings, shares, and funds. There is a strong focus on online brokerage platforms in India's PropTech business.

\$1 Tn Indian PropTech Market Size (2030E)

13% Expected GDP Contribution by 2025

>50% Real Estate Market CAGR since 2010

These statistics are key markers that hint at a strong, optimistic, and growth-driven future for the Indian real estate sector.

284 Mn sq ft Indian potential REITable assets

\$36 Bn Potential Investment for REITable assets

~1% Home Insurance Penetration in India

A big opportunity for Indian investors & insurers



Use cases

- Blockchain-based property record system
- Rent receivables management
- IoT, sensor-based warning system for insurance players
- Property & casualty, renters & disability insurance
- Lending – mortgage valuation & risk, P2P lending, or crowdfunding platforms
- Portfolio Management (REITs etc.)
- Investment Platforms (Owing a fraction of real estate assets)

5. Unaffordability is a major gap in the HealthTech value chain

Using digital technology, HealthTech aims to enhance healthcare delivery, payment, and consumption. HealthTech companies in India are confident in their solutions' use of AI and IoT components. New/niche sectors, expansion, efficiency, and customer experience are all reasons insurers look toward HealthTech integration.

~23Mn Indians not having access to healthcare

\$115 Bn Indian healthcare services expenditure (2021)

\$72 Bn Out of pocket expenditure by Indians (2021)*

62% OoPE for healthcare in India (3x global average)

There is a dire need for Healthcare Lending/Financing

65% Uninsured Indian Population

99%+ Claims Paid < \$4000 (₹3 Lakh)

\$8000-13,000 Average Cost of Medical Treatment

\$1.9 Bn 2021 HealthTech Market Size

India faces low insurance penetration with massively underinsured rest of population



Use cases

- Chatbots (Claims Management)
- Fitness monitoring wearable tech
- Contemporary risk management systems
- Tele-medicine and consultation
- Predictive healthcare
- Out-of-pocket expenses financing
- Instant Medical Loans
- Blockchain-Based Smart Contracts (For insurance products to pay out claims based on weather data validation directly)

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Our Offices

Ahmedabad

22nd Floor, B Wing, Privilon
Ambli BRT Road, Behind Iskcon Temple,
Off SG Highway
Ahmedabad - 380 059
Tel: + 91 79 6608 3800

Bengaluru

12th & 13th floor
"UB City", Canberra Block
No.24 Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 6727 5000

Ground Floor, 'A' wing
Divyasree Chambers
11, O'Shaughnessy Road
Langford Gardens
Bengaluru - 560 025
Tel: + 91 80 6727 5000

Chandigarh

Elante offices, Unit No. B-613 & 614
6th Floor, Plot No- 178-178A
Industrial & Business Park, Phase-I
Chandigarh - 160 002
Tel: + 91 172 6717800

Chennai

Tidel Park, 6th & 7th Floor
A Block, No.4, Rajiv Gandhi Salai
Taramani, Chennai - 600 113
Tel: + 91 44 6654 8100

Delhi NCR

Golf View Corporate Tower B
Sector 42, Sector Road
Gurugram - 122 002
Tel: + 91 124 443 4000

3rd & 6th Floor, Worldmark-1
IGI Airport Hospitality District
Aerocity, New Delhi - 110 037
Tel: + 91 11 4731 8000

4th & 5th Floor, Plot No 2B
Tower 2, Sector 126
Gautam Budh Nagar, U.P.
Noida - 201 304
Tel: + 91 120 671 7000

Hyderabad

THE SKYVIEW 10
18th Floor, "SOUTH LOBBY"
Survey No 83/1, Raidurgam
Hyderabad - 500 032
Tel: + 91 40 6736 2000

Jamshedpur

1st Floor, Shantiniketan Building
Holding No. 1, SB Shop Area
Bistupur, Jamshedpur - 831 001
Tel: + 91 657 663 1000

Kochi

9th Floor, ABAD Nucleus
NH-49, Maradu PO
Kochi - 682 304
Tel: + 91 484 433 4000

Kolkata

22 Camac Street
3rd Floor, Block 'C'
Kolkata - 700 016
Tel: + 91 33 6615 3400

Mumbai

14th Floor, The Ruby
29 Senapati Bapat Marg
Dadar (W), Mumbai - 400 028
Tel: + 91 22 6192 0000

5th Floor, Block B-2
Nirlon Knowledge Park
Off. Western Express Highway
Goregaon (E)
Mumbai - 400 063
Tel: + 91 22 6192 0000

Pune

C-401, 4th floor
Panchshil Tech Park, Yerwada
(Near Don Bosco School)
Pune - 411 006
Tel: + 91 20 4912 6000



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**Thank
You**

FinTech - Soonicorn Club

 stashfin	2016, Delhi, \$72.5 Mn	 Fino	2006, Mumbai, \$165 Mn	 fisdome	2016, Bangalore, \$29 Mn
 KhataBook	2018, Bangalore, \$87.0 Mn	 Jai Kisan	2017, Mumbai, \$37.5 Mn	 mSwipe™	2011, Mumbai, \$105 Mn
 SME CORNER	2014, Mumbai, \$45.1 Mn	 LENDINGKART	2014, Ahmedabad, \$231 Mn	 NA	2018, Bangalore, \$402 Mn
 rupeek	2015, Bangalore, \$110 Mn	 RenewBuy.com <i>Khuskiyon Ke Advisor</i>	2014, Gurgaon, \$79.7 Mn	 FLEXILOANS	2015, Mumbai, \$68.0 Mn
 KreditBee	2018, Bangalore, \$204 Mn	 zest	2015, Bangalore, \$68.4 Mn	 NEOGROWTH <i>Lending simplified. Growth amplified.</i>	2013, Mumbai, \$95.1 Mn
 MONEYTAP	2015, Bangalore, \$40.3 Mn	 turtlemint	2015, Mumbai, \$130 Mn	 Niyo	2016, Bangalore, \$149 Mn
 kizabt	2015, Mumbai, \$42.9 Mn	 InCred <i>Borrow. With Confidence.</i>	2016, Mumbai, \$216 Mn	 EarlySalary.com	2015, Pune, \$40 Mn
 Cashfree	2015, Bangalore, \$42.0 Mn	 fampay	2019, Bangalore, \$47.8 Mn	 ezetap	2011, Bangalore, \$56.1 Mn
 OkCredit	2017, Bangalore, \$84.9 Mn	 one score	2019, Pune, \$39.7 Mn	 CredAvenue	2017, Chennai, \$227 Mn
 AV	2017, Bangalore, \$37.8 Mn	 NeoGrowth <i>Lending Simplified. Growth Amplified.</i>	2013, Mumbai, \$95.1 Mn	 DRIP/c	2014, Mumbai, \$45.1 Mn
FINNO	2017, Gurgaon, \$145 Mn	 VAYANA NETWORK™ <i>Connecting Enterprises</i>	2009, Pune, \$46.6 Mn	 CC Avenue®	2001, Mumbai, \$9.0 Mn
 Niyo	2015, Bangalore, \$49.4 Mn	 true balance	2014, Gurgaon, \$90.0 Mn	 INDmoney <i>Super Money App</i>	2019, Gurgaon, \$148 Mn
 vivriti CAPITAL	2017, Chennai, \$108 Mn	 AUXILO <i>The next level beckons</i>	2017, Mumbai, \$50.8 Mn	 dhanipay	2010, Mumbai, \$26.8 Mn

Illustrative and non-exhaustive

Globally, Neo-banks have disrupted the value chain and ecosystem of the traditional banking system through all working models

A licensed digital bank



- Licensed by the regulator to provide all banking services
- Technology-enabled business model and provide services remotely with no or minimal physical point of contact
- Provide value-added services

Digital unit of existing licensed bank



- Digital-only services offered by existing banks under the different brand names
- Targeting existing customers using technological solutions

Partnership model



- FinTechs partnered with licensed banks providing co-branded cards, payment services, and zero-fee accounts
- Providing value-added services like expense management, rewards, and loyalty programs

UK neo-banks receiving full banking licenses



Asia exhibiting a prospective environment for neo-banks

Hongkong

Eight licenses have been granted by HKMA

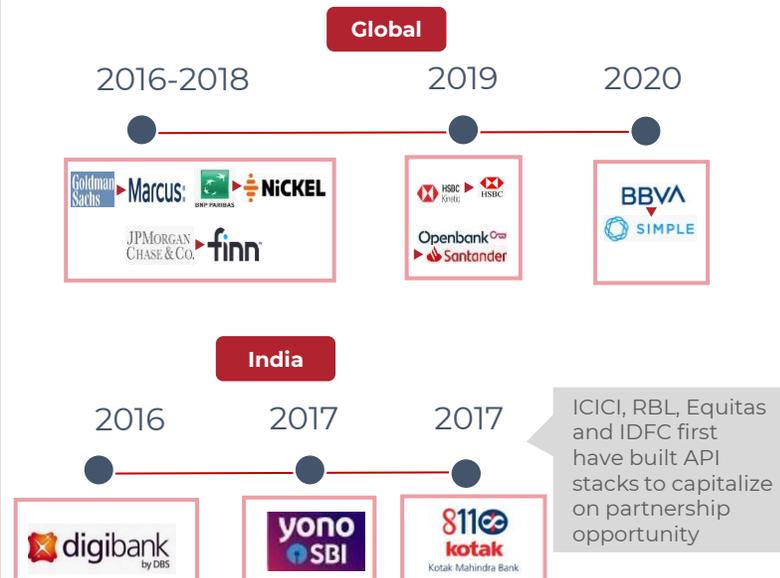
Singapore

Four digital bank licensed have been approved by MAS

Malaysia

Up to five digital banking licences will be issued

Traditional banks are adapting to compete with Neo-banks through their own digital offerings



India's neo-banking landscape is currently dominated by a partnership model approach where neo-banks are not licensed and have to partner with a financial institution to roll out their products and services



Every aspect (lending, investment management, payments) of the financial value chain is being reinvented by tech firms.



Prominent globally



Prominent in India

Players are bypassing licensing restrictions through partnership (Neo + traditional) model

Banking partner

Insurance

Offering services to underserved customers like new to credit, Gig, GenZ



Traditional customers

Indian neo-bank growth stats

Neo-Bank		Jupiter	fampay	instantpay	Niyox
Valuation	\$1.1 Bn-\$1.2 Bn	\$710 Mn	\$350 Mn	-	-
Funds raised	\$137 Mn	\$158 Mn	-	\$340 Mn	\$149.2 Mn
Founded in	2017	2019	2019	2013	2015
Target customers	SMEs, Startups	Millennials and GenZ	Teenagers	SMEs, Large business, Individuals	Millennials and GenZ
Revenue	\$2.4Mn (FY21) (+82% YoY)	\$1.5Mn (FY21) (+215% YoY)	\$3.8Mn transactions during Q1'21	-	-
Customer base	2 Mn SMEs	5K to 6k users daily onboarded	3Mn registered users	10 Mn monthly active customers	4 Mn customers
Recent news/developments	Acquired Finin, a consumer focused neo-bank for \$10 Mn Achieved unicorn status	2.5x in valuation from the previous round To launch lending and wealth management services.	Launched 'numberless card' for teenagers Partnered with Visa to launch Doodle Card for GenZ	Launched Cashback Card in partnership with NPCI and YES Bank	To launch lending and Insurance

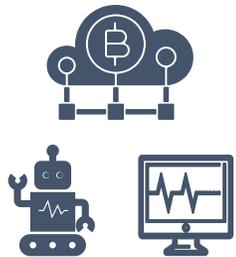
Source: Company websites; News Articles

Illustrative and non-exhaustive

Source: Company websites; EY Analysis (for funding of Open and Jupiter money funding)

Transformation of Jobs & Education by FinTech

As financial services become digital industry, there is little doubt that many jobs will be converging towards FinTech jobs and should be a priority for the ecosystem to reflect upon. While the FinTech industry is a significant employer, very few students are prepared for or even aware of the opportunities. This should therefore be an area of focus for higher education system.



Requirement of New Technical Skills

FinTech industry is forcing the talent pool to reconsider the skillsets that would require to thrive in the new environment.

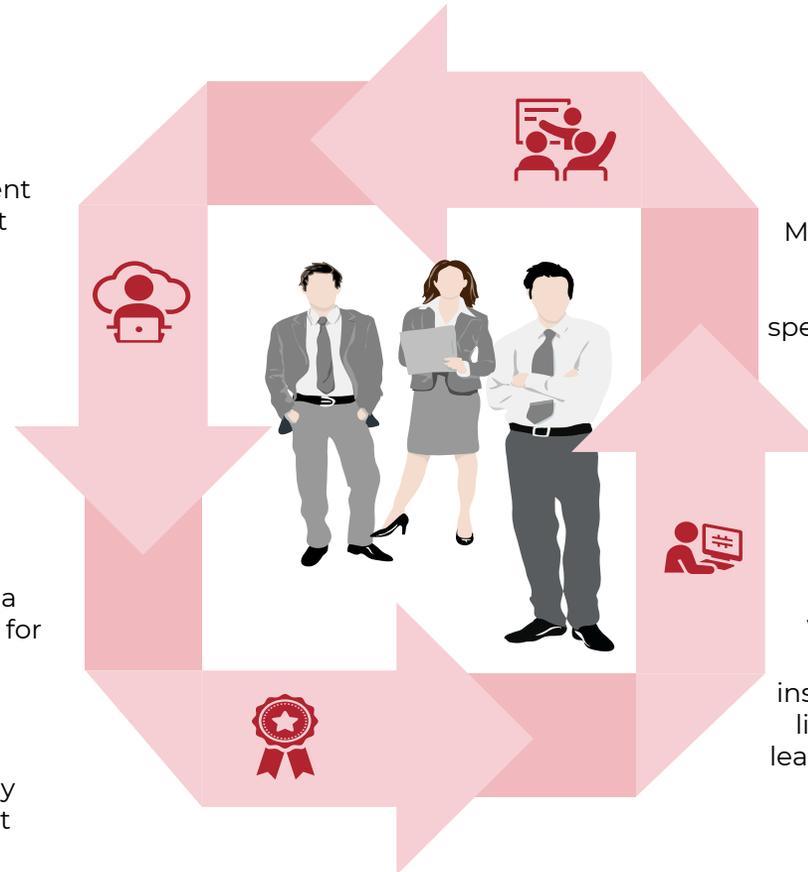
FinTech's are expanding rapidly in fields of AI, ML, Blockchain, RPA, Cloud, etc.



Importance of Soft Skills

FinTech apps and services are designed to be easy for users and a customer centric mindset is must for those involved in implementing differentiated CX.

Teams must also be able to adopt agile ways of working. Educational institutions are heavily engaging in soft skill development programs.



Specialised FinTech & digital Courses

Many universities in India like NMIMS, SPJIMR, IIMs, IITs, BITS, etc. are now offering specialised courses in FinTech.

Partnerships with FinTech for Talent Upskilling

Various FinTech startups are helping educational institutions to include subjects like data science, AI, machine learning, etc. in their courses to equip the students to be industry ready.



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CFTE Centre for Finance, Technology and Entrepreneurship

Key Job Trends In The FinTech Industry (1/2)



300,000

People are employed by the 225 Largest FinTech Companies



40,000+

Professionals to be hired in the next five years globally



As the FinTech industry has grown, it has also led to many employment opportunities. While a job in FinTech was not an obvious and viable option for most of the students and professionals a few years ago, it is now clearly an alternative to be considered: salaries are high and career opportunities are flourishing, thanks to the overall industry growth.

Lack of taxonomy of FinTech jobs



Lack of standardisation

FinTech jobs offered by young and fast-growing companies are not yet standardised with creation of job structures and roles as they grow

The roles can be categorized in 10 functions



Engineering



Data Science



Product Mgmt.



Design



Marketing & Comm.



IT & Operations



Sales & BD



Partnerships



Risk & Compliance



Core Business Finance

Jobs specific to each company

As FinTech companies grow, they create roles and positions that are specific to their circumstances and might not be suited for other organisations.

Jobs that didn't exist

Some jobs did not exist few years ago and new jobs that are created might have little equivalence.

4

1

2



3

Same job titles but different roles

A role with the same job title might mean something totally different between two organisations.

Diverse sector

FinTech is a broad industry that includes diverse sectors like insurance, banking, lending, cryptocurrencies, etc. with very different job requirements.

Due to the above constraints, the taxonomy of jobs in the FinTech sector is likely to remain very fluid until the industry becomes much more mature.

Key Job Trends In The FinTech Industry (2/2)

Jobs in FinTech



Generic

Finance Department

Human Resources

Legal

Customer Support



Technology

Engineering

IT & Ops

Data Science

Product Management

Design

Marketing & Communication

Sales & Business Development

Partnerships



Finance

Risk & Compliance

Core Business Finance

Tech Jobs

Non-Tech Jobs

Skills in FinTech

Skills that can be assessed or examined through an exam e.g., Data Science, Python, R, Open banking regulations, Financial Concepts, etc.



Hard Skills

Experience is essential for a job in FinTech along with an interest in career advancement. The FinTech industry tends to hire experienced professionals rather than young graduates.



Experience

Industry knowledge is the knowledge of industry, sector trends or general knowledge. e.g., knowledge of FinTech ecosystem, trends in the industry, players, regulators, etc.



Industry Knowledge



Soft Skills

Skills that are less tangible and measurable, human qualities that relate to a candidate's interactions with colleagues, collaboration, multitasking, negotiation, interpersonal skills, project management, etc.



Mindset

Mindset is a way of thinking that ensures longevity and success of a career, better teamwork, work ethics. Thinking like an entrepreneur is the best way to summarize the mindset of a FinTech. e.g., Proactive, problem solver, innovative, creativity, learning, etc.

Business Models: Agri-FinTech

<p>Customer Segments </p> <ul style="list-style-type: none"> • Small & Medium Sized Farmers • Farmer Producer Organisations 	<p>Key Offerings </p> <ul style="list-style-type: none"> • Market linkage • Precision agriculture & automation • Financing • Farm inputs • Farming-as-a-service • Farm management & data analytics 	<p>FS Offering </p> <ul style="list-style-type: none"> • Insurance • Loans • Recovery of loans • Farmer onboarding (KYC) • Underwriting of loans & insurances • Payment collection • Claims processing
<p>Key Partners </p> <ul style="list-style-type: none"> • Local Panchayats • Common Service Centers • Farmer Producer Organisations • NGOs • Village Level Entrepreneurs • Banks 		
<p>Technologies Involved </p> <ul style="list-style-type: none"> • Remote Monitoring • Satellite photography and sensors • IoT based sensor networks • Phase tracking • Weather forecasts • Automated Autonomous Robots • Blockchain 	<p>Players </p> 	

Illustrative and non-exhaustive

Business Models: Retail-FinTech

<p>Customer Segments</p>  <ul style="list-style-type: none"> Buyers Retailers (SMBs etc.) 	<p>Key Offerings</p>  <ol style="list-style-type: none"> Infrastructure & Tech Enablers <ul style="list-style-type: none"> Marketplace Enablers Pricing Optimisation Online Payment & Checkout Digital Lending Product Search & Discovery Consumer Knowledge & Experience <ul style="list-style-type: none"> Customer Data Customer Experience Process Optimisation & Business Efficiency <ul style="list-style-type: none"> Supply Chain & partnerships Fulfilment Logistics & Delivery In-Store Operations <p>Customer Journey</p> <ul style="list-style-type: none"> Store Intelligence 	<p>FS Offering</p>  <ul style="list-style-type: none"> Cross-Border payments Easy financing solutions for small businesses Banking solutions for small businesses Credit integration and part payments Insurance for goods
<p>Key Partners</p>  <ul style="list-style-type: none"> Payment Solution Providers Lenders Retailers 	<p>Technologies Involved</p>  <ul style="list-style-type: none"> In-store analytics Virtual Fitting rooms Two-way QR codes Cashierless checkouts Hyperautomation On Demand manufacturing Integrated omni channel customer engagement 	<p>Players</p>  <p>LENDINGKART Think Cash, Think Lendingkart Group!</p> <p>dukaan® Pine Labs</p> <p>PAY1™ Dukandaron Ka Network</p> <p>udaan</p> <p>VAYANA NETWORK Connecting Enterprises</p>

Illustrative and non-exhaustive

Business Models: Prop-FinTech

<p>Customer Segments </p> <ul style="list-style-type: none"> • Home Insurers • Tenant • Investor/Institutional Investor 	<p>Key Offerings </p> <ul style="list-style-type: none"> • Brokerage Services, Marketplaces • Data, Valuation & Analytics • Virtual Viewing Options • Lease Guarantee & Financing Solutions. • Investment & Crowdfunding • Space-as-a-Service • Agent Tools • Project Management • iBuyer Solutions • Hybrid Agents • Insurance & Closing • Equity Release 	<p>FS Offering </p> <ul style="list-style-type: none"> • Rent receivables management • Accounting, Finance, Compliance & Control Management • Property & casualty, renters & disability insurance • Real Estate Fractional Ownership Platform • Portfolio Management Platform • Investment Platforms
<p>Key Partners </p> <ul style="list-style-type: none"> • Broker • Payment Solution Providers • Lenders • Government & Policy Makers • Real Estate Companies 	<p>Technologies Involved </p> <ul style="list-style-type: none"> • Sensors • Drones • User-Created Data • Open APIs • Aggregators • 3D Mapping & imaging • Satellite Data <p>Virtual Data Rooms</p> <ul style="list-style-type: none"> • Building information Modeling (BIM) • IoT <p>Players </p> 	

Business Models: Health-FinTech

<p>Customer Segments </p> <ul style="list-style-type: none"> • Patients • Insurers 	<p>Key Offerings</p> <ul style="list-style-type: none"> • Teleconsultation • HER/EMR and HIS • E-Pharmacies • Medical Supplies • Diagnostic & Drug Discovery • Home Healthcare • Healthcare IT and Analytics • Medical Tourism • Emergency Response • Personalized HealthCare • Patient Aids • Personal Health Records 	<p>FS Offerings </p> <ul style="list-style-type: none"> • Instant Loans • Integrated Payments • Lending & Medical Insurance Underwriting • Claims Processing • Travel/Health Insurance • Collection of Accounts Receivables 
<p>Key Partners </p> <ul style="list-style-type: none"> • Healthcare Providers • Payment Solution Providers • Lenders 		
<p>Technologies Involved</p> <ul style="list-style-type: none"> • Genemoic Labs • Aggregators • Mobile Fitness & Health Apps • Remote Monitoring • IoT Fitness Devices 	<p>Players </p>          	

Illustrative and non-exhaustive