



The winds of change

Trends shaping India's
Fintech Sector: edition II

September 2022



PAYMENTS COUNCIL OF INDIA



Fintech Convergence Council



Building a better
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India is set to become the third largest economy in the world by 2029. The FinTech industry has a crucial role to play in the country's dream to reach the third largest economy from the fifth largest economy in the world. The global fintech market is expected to grow at a CAGR of 23.58% from 2021 to 2025. Total global fintech funding (across mergers & acquisitions, private equity, and venture capital) reached \$210 billion with a record 5,684 deals in 2021 up from \$125 billion across 3,674 deals in 2020.

India is becoming the FinTech hub for the world, with an estimated market opportunity of \$1.3 trillion by 2025 and active FinTech startups of more than 4200¹. Over 550 startups have received funding total of \$22 billion over eight years (2014 - 2022). JAM trinity, digital public goods infrastructure(AA, OCEN and UPI) and India Stack in India are a blessing for Indian startups, and leveraging FinTech to cross- sell products has made it a crucial revenue model for entrepreneurs.

FinTech has greatly disrupted the way people and businesses interact with financial services. They can solve problems of access, reduce friction between customers and financial institutions, and attract capital to India. They bring in a tremendous amount of flexibility, and the ability to bundle and unbundle products and specialize in areas where there is a gap. The accelerated development of fintech players has facilitated speeding up financial inclusion and new-age advances in technologies will additionally animate digital adoption or reception in the nation, helping both the business industry and the consumers.

The financial services industry has seen a significant change as a result of the current surge in the Environmental, Social, and Governance (ESG) investing. The global fintech industry currently receives approximately one-quarter of all impact-oriented investment, more than any other industry and representing almost \$250 billion in Assets Under management (AUM). Further fintech has led to a decrease in the share of paper-based clearing as a percentage of retail payments, particularly in terms of the number of paper instruments processed. The share of cheque payments in total payment systems transactions in India has reduced to 1.7% in 2020 from 7.5% in 2017, leading to the decline in cheque-based payment transactions in India at a CAGR of 15.4% from 2017 to 2020 thus having a direct implication on saving trees. E-signatures have also removed the need for physical agreements, leading to a market size of around \$9073.1 M by 2023.

The main forces for innovation led by FinTech in terms of product and delivery continue to be a significant under-penetrated market across numerous financial services and favorable demographics. The drivers majorly include fast-growing digital adoption, mobile penetration, and the regulatory environment coupled with world-leading digital infrastructure. In the future, FinTech trends will continue to improve the livelihood of people with meaningful and valuable technology-based financial services. Millennials now make up most of the market and are the main consumer base for FinTech products. Through a robust and encouraging ecosystem, which will continue to expedite the growth and penetration of FinTech in India, FinTech companies have developed for the underserved financial requirements.

Due to emerging technologies, the digitalization of financial services, changing cultural trends, and a favorable regulatory landscape, FinTech has been growing beyond new-age technologies and remodeling itself to adapt to meet sustainable means of growth contributing to 11 out of 17 SDGs from the 2030 agenda. Being one of the fastest growing sector in India, Fintech will have a crucial role to play in realizing our goal of a \$5 trillion economy

FinTech, enabled by emerging technologies and innovative solutions, has significantly transformed the global financial services industry. India is leading the FinTech adoption race with an adoption rate of 87%, substantially higher than the world average of 64%. The promising Indian FinTech market is expected to reach \$1 trillion in AUM and \$200 Billion in revenue by 2030.

FinTech sector in India has experienced an exponential surge in funding over the past few years, attracting massive investment from large venture capital and private equity firms. FinTech companies capitalized on the rising demand for digitization of financial services during covid-19. Indian FinTech market witnessed an investment of \$8 Billion in 2021, producing over 15 FinTech unicorns during the year.

While IPOs gave good returns to initial investors, performance of FinTech stocks has lost sheen in the recent market. One of the driving forces behind the selloffs in these companies is macroeconomic issues, more specifically, rising borrowing rates in the global markets. But the opportunity for FinTech companies and their stocks is still certainly large considering the total size of the banking, lending, trading, investing, and insurance industries as well as the asset-light models of operating.

Another critical inhibitor of sustainability and growth of FinTech is the availability of FinTech talent. Amongst a high churn rate, finding resources who are skilled on implementing emerging technologies is a herculean task for FinTech looking to scale fast and reduce time-to-market.

Regulators are making strong moves in this space for customer protection and resilience which shall further curate the Indian FinTech market. The direction of the regulatory framework is to enable collaboration as well as protect customer interests.

Excitement is high for our digital growth story as India stack is moving towards open banking and account aggregation is the first step in this journey. OCEN and ONDC initiatives will reform ecommerce and build world's most comprehensive digital public-goods infrastructure.

Our report delves into the FinTech landscape, funding, regulations, digital adoption, and the forces shaping the future of the FinTech industry. Our insights in this report are based on our work with both established companies and FinTech start-ups and their business and technology strategies which show the potential of FinTech in converting market challenges into opportunities. In the report, we also highlight the key and emerging trends in the industry like PayTech, Neobanking, InsurTech, Ecosystem banking, and Alternative Investments, shaping the FinTech market for the coming decade.

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

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Executive Summary

Indian FinTech ecosystem has emerged as a formidable global force and continues to grow as one of the largest FinTech markets globally. One of the best digital payments ecosystems in terms of value and volume, phenomenal growth in the consumer and SME digital credit access, and towering participation of the retail investors in the stock market are testimonials that Indian FinTech companies are on the right trajectory.

EY and Chiratae's recent study shows that the next decade will record a 10X growth in the India FinTech market to achieve \$1 trillion² in AUM and \$200 billion³ in revenues. According to the Tracxn database, as of July 2022, the number of FinTech startups in India was over 7300. It is supported by an overall funding volume of \$30.2 billion, with 35% of the funds raised in the last sixteen months.

This growth is underpinned by a bunch of nurturing initiatives undertaken by the government and concerned regulators, a buoyed funding environment and strengthening VC ecosystem, undeniably massive demographic opportunities, high FinTech adoption, and access to technology and talent for the entrepreneurs building for the new India. The innovative spirit of FinTech is anchored around the collaborative ecosystem where banks and insurers are actively partnering with FinTech companies. FinTech and traditional financial services (FS) firms are creating symbiotic relations that leverage the willingness toward secured data sharing and monetization.

There are a few concerns as well. It includes data security and privacy risks in the partnership scenarios, varied adoption of digital financial services across demographic groups, a dearth of financial literacy and awareness, IPO underperformance, and global geopolitical and macro-economic events making institutional investors cautious before big investments that are reflected in the first half 2022 funding trends, and the pace of changing regulations that keep FinTech companies on their toes.

On the brighter side, huge opportunities for FinTech outweigh the challenges. Financial inclusion remains an agenda for the government in the wake of traditional FS players' under-penetration in rural, ageing population, unorganized, and gig segments. Better customer experiences and specialized product expectations present opportunities for FinTech companies, such as new models of neo-banking. Insurance and wealth have witnessed a promising uptick but remain highly under-penetrated. The market opportunity coupled with conducive and proactive regulators has helped the FinTech industry grow at a notable pace. FinTech companies have managed to attract top talent from various sectors, which will continue to help them thrive.

In this second edition of EY's India FinTech – The winds of change report, we have combined EY's research and consulting teams' expertise to deep dive into seven key trends that continue to shape the industry as we look forward. It highlights the rapid digital adoption and how it creates opportunities for traditional FS and FinTech.. The report takes a pulse of how PayTechs are exploring new revenue streams to be profitable, and neobanks have found a foothold in niche customer segments. It looks at how banks are building digital-only neo-banking offerings and ecosystem banking channels in-house while gaining experience in partnerships with FinTech. The insurance segment is growing on the back of product and distribution innovation and WealthTechs are democratizing the equities and alternative investments for retail investors, which is highlighted in the report.

We are excited to share the findings with you. Hope you enjoy the read!

²https://www.ey.com/en_in/financial-services/how-is-the-FinTech-sector-in-india-poised-for-exponential-growth

³https://www.ey.com/en_in/financial-services/how-is-the-FinTech-sector-in-india-poised-for-exponential-growth





2

FinTech landscape in India

In 2021, India was in the spotlight with its FinTech achievements that echoed the global momentum in this industry. India is the third largest FinTech market, following the US and the UK, with several FinTech unicorns, startups, and funding. EY and Chiratae's recent study shows that the next decade will record a 10x growth in the India FinTech market to achieve \$1 trillion in AUM and \$200 billion in revenues. Apart from the COVID-19 lockdowns as an unexpected but critical push for digital adoption in financial services, several other factors continue to contribute to the FinTech's growth story. These factors include reliable and fast computing power of handheld devices, faster and widespread internet access, and the government's push for a digital economy. In addition, increased demand for inclusive financial services, customer expectations, and hyper-competitive financial services market underpins the rise and growth of FinTech.

India continues to grow as one of the largest FinTech markets globally⁴

Over the last decade, the FinTech has had a significant impact on the global financial services industry. However, greater regulatory scrutiny, shifting client preferences, uncertain macroeconomic events, and ongoing geopolitical turmoil hindered FinTech investments in the first half of 2022, resulting in muted growth. Despite pandemic-induced delays, 2021 was still a strong year of growth for the global FinTech industry.

India's Total FinTech funding in 2021 was
\$7.8 billion
(excl. debt, IPOs, and corporate rounds)

Major FinTech trends that emerged globally are embedded finance, PayTech, e-commerce growth, Insurtech, and Wealthtech. From payments to investments and lending, embedded solutions are penetrating every aspect of financial services. Digital payments have become a critical enabler of e-commerce sales, supporting the expansion of businesses small and large to new customer segments and new global markets. From mobile money to services like BNPL, cross-border transactions, mobile wallets, and payment orchestration, FinTech players like (Visa, Klarna, and PayPal) are playing an important role in increasing the banked population around the world. InsurTech and technology startups, to ensure the majority of the population is insured, continue to redefine customer experience and smooth onboarding processes through innovations such as risk-free underwriting, on-the-spot purchasing, activation, and claims processing. WealthTechs are increasingly democratizing equities and alternative investments for retail investors. The shift from single purpose to multi-purpose apps has resulted in the emergence of solutions and services such as Super Apps. These services include

Payments, lending, investment advisory, insurance advisory and distribution, and several other services that traditionally required physical/in-person interfaces are now the fundamental offerings of the contactless, remote, and digital-native FinTech landscape. Real-time, transparent, and efficient offerings from FinTech across value chains have challenged the status quo of the financial services industry for good. India's significant contribution in adding FinTech startup numbers, funding values, userbase, and volumes of transactions to the industry is a bright spot and frequently highlighted case at the global FinTech events. Today India is not just exporting talent to the world, but also ideas and the best of the FS innovations.

transportation (like Lyft), retail (like Amazon), food delivery (like DoorDash), banking, entertainment, and more. From traditional institutions deploying 'robo-advisors' to advanced algorithms assessing a credit applicant's risk, fintech companies will probably continue to expand their use of AI and machine learning in 2022.

In line with global trends, India's FinTech ecosystem has seen tremendous growth over the last few years, making it one of the largest and fastest-growing FinTech markets. Earlier in 2020, India topped among Asia-Pacific (APAC) countries in FinTech investments, and then extended its lead in FinTech investments, with \$7.8 billion raised in 2021.

Southeast Asia-based FinTech companies were close behind and registered the biggest funding growth in Asia-Pacific in 2021. FinTech startups in Southeast Asia netted \$4.70 billion across 217 transactions in 2021, up from \$1.13 billion across 118 deals in the prior year. For a comparative lens - according to S&P Global Market Intelligence, private funding received by FinTech in Asia-Pacific more than doubled to \$15.69 billion in 2021 from \$5.87 billion in 2020. While this growth followed subdued funding activity in 2020, the 2021 figure also represented a 74% jump from 2019's pre-pandemic level. Deal volume followed a similar trend. In the most recent year, FinTech companies in the Asia Pacific sealed 754 deals, up 81% and 49% in 2020 and 2019, respectively⁵.

According to the Tracxn database, as of July 2022, the number of FinTech startups in India was over 7300, excluding the acquired and the deadpooled players. Some of these are recently founded players in the early days of building minimum viable products. The total volume of FinTech funding till June 2022 has been approximately \$30.2 billion, with 35% of the funds raised in the last sixteen months. In 2021, FinTech funding recorded a massive surge, clocking at \$7.8 billion. While earlier in 2020, FinTech faced a dip in funding by 26.7% to \$2.9 billion.

⁴<https://www.cioinsiderindia.com/news/indian-FinTech-startups-revenue-to-clock-200-billion-by-2030-nwid-4296.html>

⁵<https://www.spglobal.com/marketintelligence/en/news-insights/research/record-high-apac-FinTech-funding-in-2021-paves-way-for-more-ma>

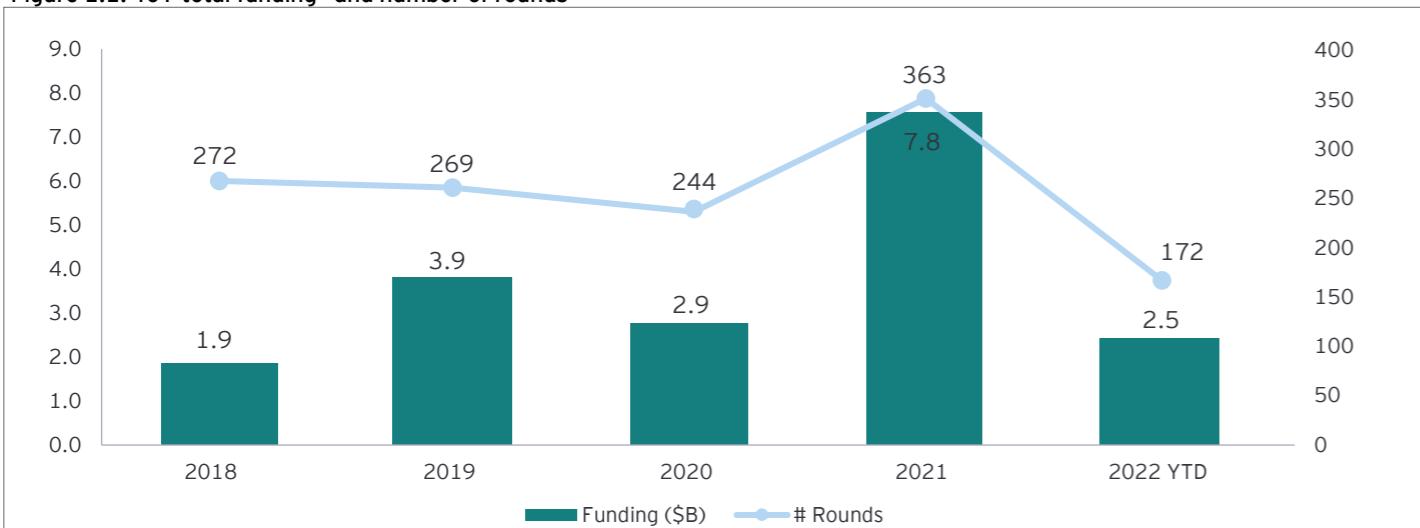
Funding decline in 2022

In the first half of 2022, the market witnessed a sharp decline in equity FinTech funding. As of 30 June 2022, total FinTech funding raised (excluding debt, Grant, Post-IPO and ICO funding, and corporate minority/majority rounds) stood at \$2.47 billion. Several factors could have played a role in this decline, including macroeconomic and geopolitical factors such as the Ukraine war, increase in inflation, and uninspiring financial and public market performance of major FinTech companies, creating a dent in investors' confidence in the future exit prospects.

Figure 1: Key stats, funding trend, # of companies, and top business model for the Indian FinTech sector

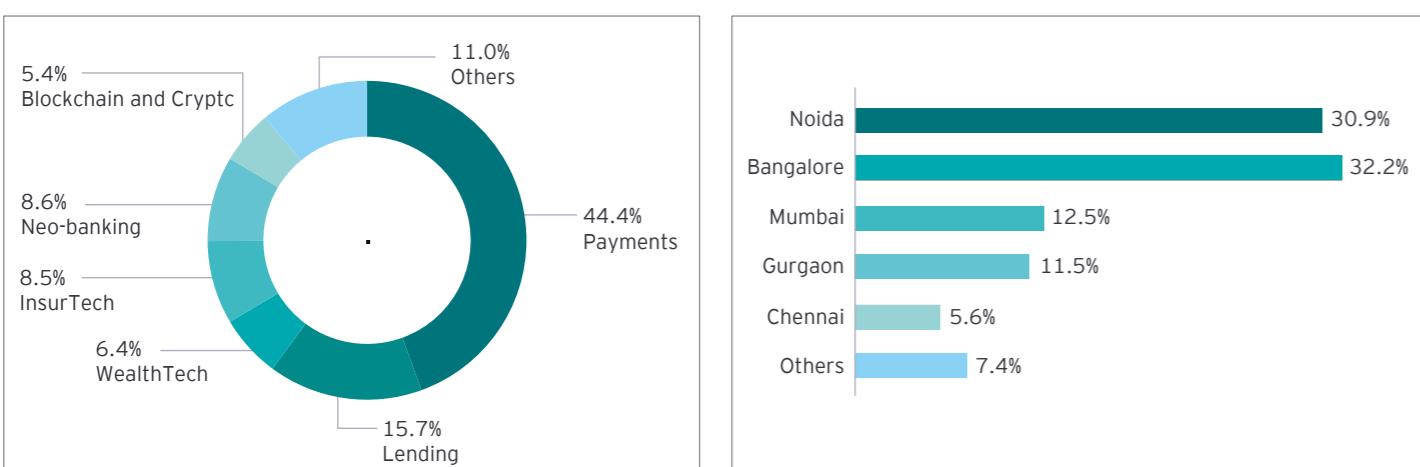


Figure 1.1: YoY total funding* and number of rounds



Source: EY analysis of pureplay FinTech deals as on 30 June 2022

Figure 1.2: Top funded business models in 2021

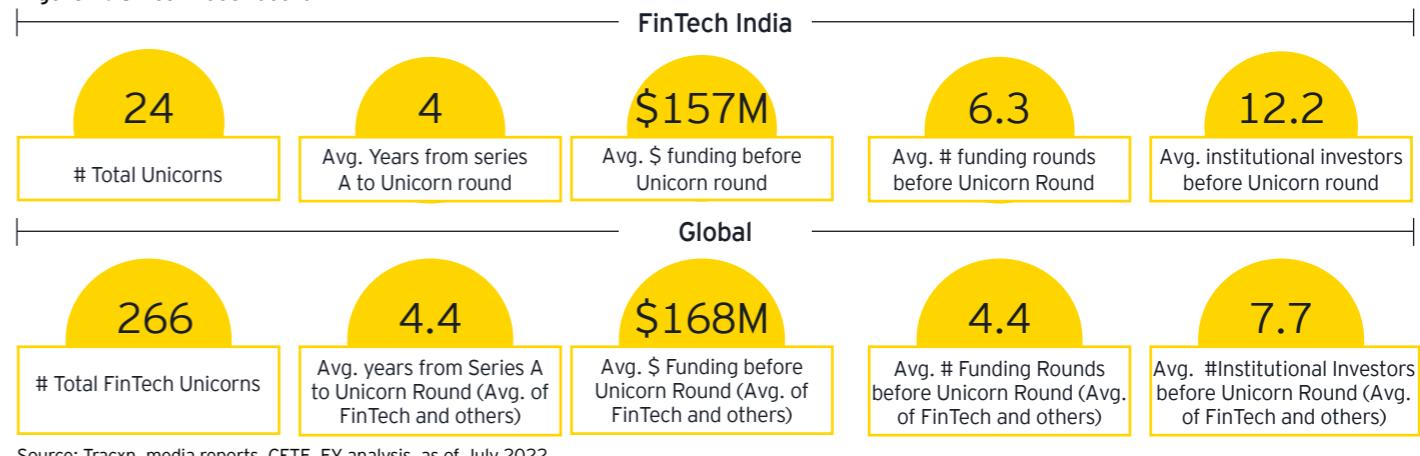


Source: Tracxn, Media reports as of June 2022

As of June 2022, India had more than 100 unicorns, and in this prestigious pool of startups, almost every fourth unicorn is a FinTech. But there is a lot of headroom compared to global FinTech unicorns; India lags and contributes approximately 7% of the global pool of FinTech unicorns. Considering the market size, we should expect more.

India as a FinTech unicorn farm⁶

Figure 2: Unicorn dashboard



Year	Unicorn event by year (24)									
As of July 2022 (9)	CoinSwitch	MobiKwik	slice	BharatPe	ACKO	Yubi	one	open	Oxyzo	(Formerly Ofbusiness)
2021 (7)	Cred	Chargebee	digit	Groww	Zeta	CoinDCX	Upstox			
2020 (3)	Razorpay	Zerodha	Pine Labs							
2019 (3)	Razorpay	Billdesk	Zoho							
Upto 2018 (2)	paytm	pb								

Source: Tracxn, EY analysis, as of July 2022

Figure 3: Soonicorn Club

Company
Khatabook (2018, Bangalore, \$187M)
INDMoney (2019, Gurgaon, \$159M)
InCred (2016, Mumbai, \$216M)
Kissht (2015, Mumbai, \$50.7M)
Turtlemint (2015, Mumbai, \$250M)
Scripbox (2012, Bangalore, \$71.3M)
Ezetap (2011, Bangalore, \$59.1M)
Clear (2011, Bangalore, \$140M)
MoneyTap (2015, Bangalore, \$93.3M)
ZestMoney (2015, Bangalore, \$125M)
EarlySalary (2015, Pune, \$50.2M)
FamPay (2019, Bangalore, \$47.8M)
FlexiLoans (2015, Mumbai, \$62.3M)
KredX (2015, Bangalore, \$33.0M)
Mintifi (2017, Mumbai, \$59.9M)
Rupeek (2015, Bangalore, \$144M)
Indifi (2015, Gurgaon, \$62.1M)
BankBazaar (2008, Chennai, \$117M)
M2P Fintech (2014, Chennai, \$107M)
RenewBuy (2015, Gurgaon, \$95.3M)
Stashfin (2016, Delhi, \$72.5M)
Lendingkart (2014, Ahmedabad, \$231M)
Smallcase (2015, Bangalore, \$71.9M)
Zolve (2020, Bangalore, \$55.0M)
Simpl (2015, Bangalore, \$83.0M)
Navi (2018, Bangalore, \$444M)
Money View (2014, Bangalore, \$128M)
Cashfree Payments (2015, Bangalore, \$42.0M)
Progcap (2016, Delhi, \$61.1M)
Mintfi (2017, Mumbai, \$59.9M)
OneAssist (2011, Mumbai, \$53.0M)
Vivriti Capital (2017, Chennai, \$195M)
KreditBee (2018, Bangalore, \$204M)
Fi (2019, Bangalore, \$75.4M)
Niyo (2015, Bangalore, \$149M)
Jupiter (2019, Mumbai, \$164M)
OneScore (2019, Pune, \$203M)

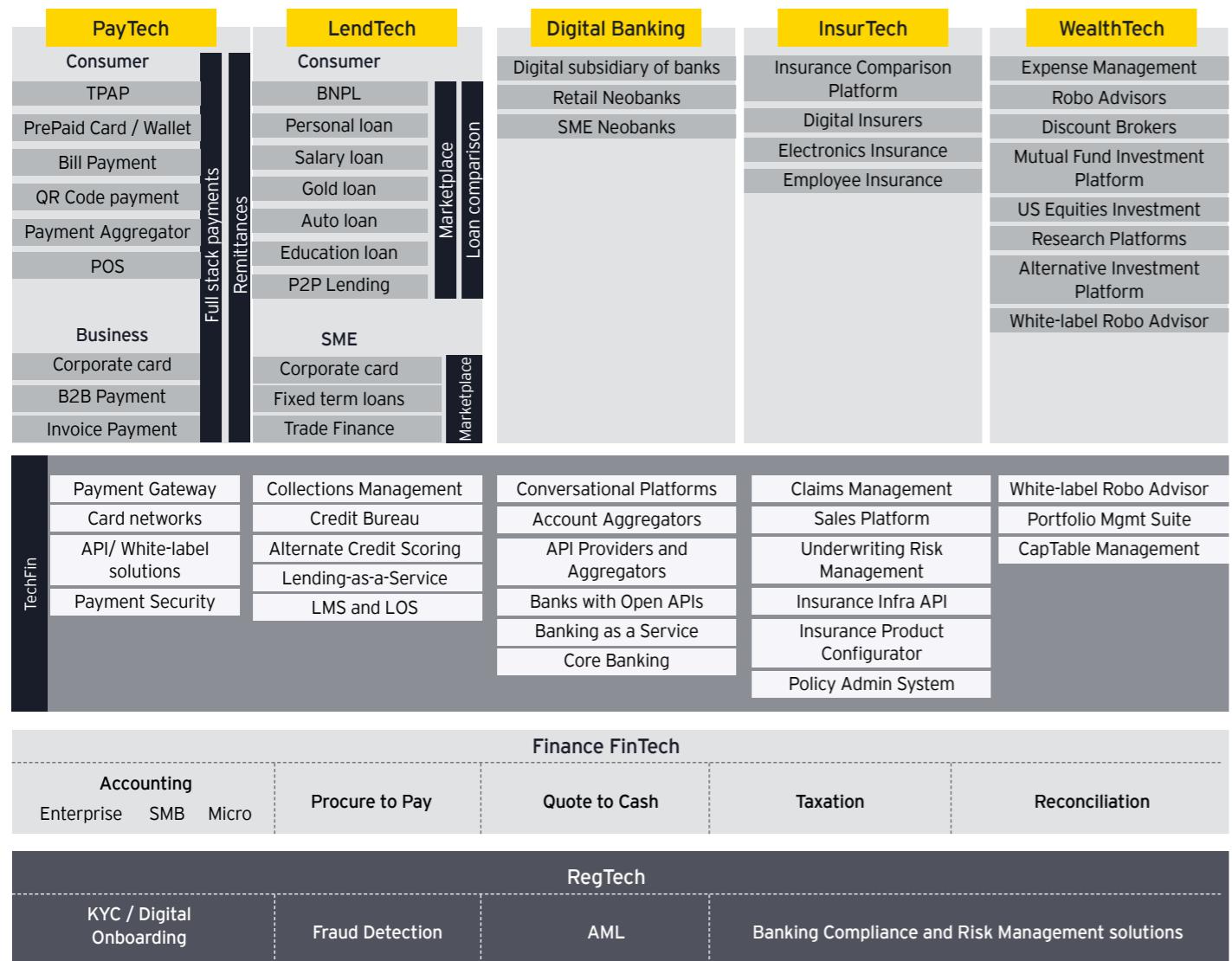
Source: Tracxn, as of June 2022

Note: A Soonicorn is a company that is likely to achieve a US \$1 billion valuation in the short to medium term. Tracxn Score is a proprietary score based on various market signals reflecting the company's size, execution, and growth.

<https://courses.cfte.education/ranking-of-largest-FinTech-companies/>

This report analyzes key FinTech segments in depth to understand the areas of growth, opportunity, and challenges. Below is an indicative illustration of the wide and diversified FinTech landscape in India:

Figure 4: India FinTech Market Map



Source: EY Analysis

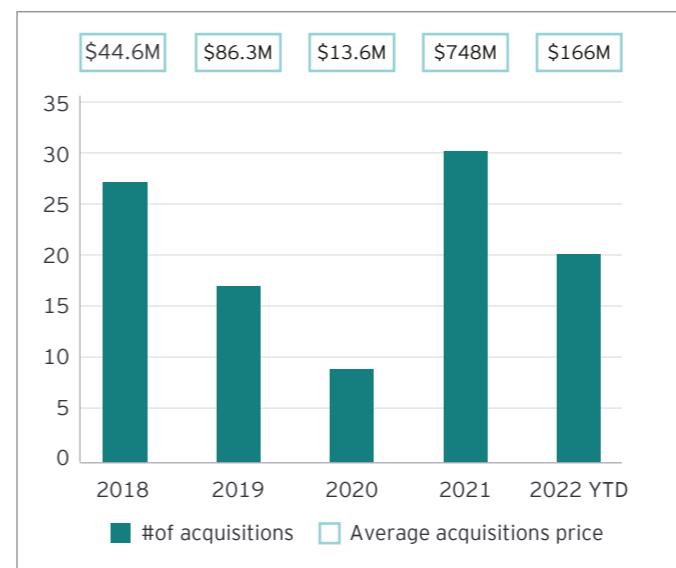
FinTech M&As and IPOs

We have analyzed all India FinTech acquisitions in the last two decades and observed that over 165 Indian FinTech companies have exited through M&A⁷.



The FinTech acquisitions surged in 2021. This growth can be attributed to the rapid digital adoption by consumers during lockdown periods owing to COVID-19.

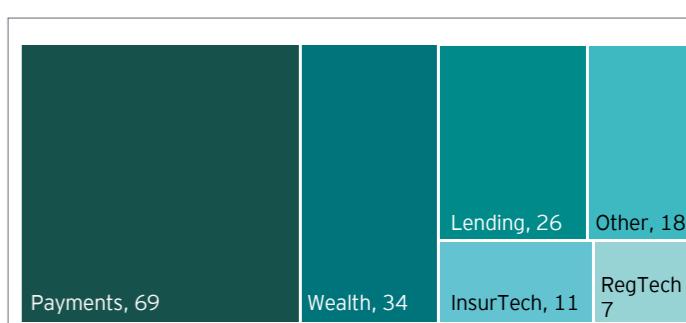
Figure 5: India FinTech M&A trend - 2018 - 2022 YTD



Source: Tracxn, EY analysis; YTD - as of 30 June 2022

A quick look at the most acquired categories indicates higher exit counts in Payment and WealthTech players.

Figure 6: India FinTech M&A - Payments and WealthTechs lead the pack through M&A exits (by #acquisitions)



Source: EY analysis of CBInsights data of FinTech deals as of Dec 2021

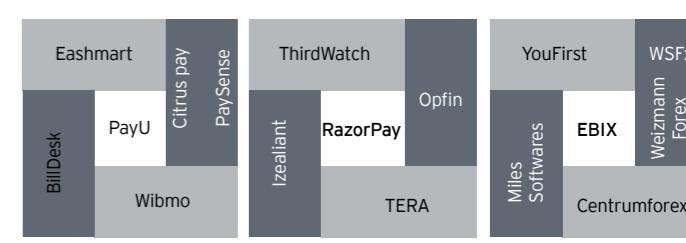
1 PayTech is consolidating

A detailed look at the acquirers of India Payment players reveals that most of the acquisitions are made by other PayTech players (over 32 acquisitions), followed by only a few acquisitions in e-commerce, lending, and telecom players trying to streamline their payment capabilities.

Notable Payment M&As include



A closer look at the busiest acquiring PayTechs indicates that PayU, RazorPay, and EBIX-like players have acquired several big and small market players over the years to scale up the payments capabilities and diversity to digital lending and WealthTech capabilities.



Source: EY analysis

⁷<https://inc42.com/buzz/consolidation-wave-ma-deals-indian-startup-ecosystem-all-time-high-165-h1-2022/>

⁸https://www.business-standard.com/article/companies/payu-acquires-indian-digital-payments-provider-billdesk-for-4-7-bn-121083100517_1.html

⁹<https://www.bloomberg.com/news/articles/2014-07-02/ingenico-in-talks-to-acquire-globalcollect-in-1-12-billion-deal>

¹⁰<https://timesofindia.indiatimes.com/business/india-business/axis-bank-acquires-freecharge-for-rs-385-crore/articleshow/59799158.cms>

2 PayTechs are also gobbling digital lenders to diversify

Payment players are among the leading acquirers of digital lending startups in India. Between 2015 to 2021, seven digital lending players got acquired by payment companies. It was followed by five deals where another lender acquired the digital lending startup.

Notable Avg. tenure before exit

\$185 million ¹¹ PaySense by PayU	\$80 million ¹² Karza Technologies by Perfios	\$51.2 million ¹³ Information Bureau by TransUnion
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3 WealthTechs consolidation

Out of 34 deals, most of the WealthTech startup acquirers are bigger WealthTech players (12 deals), followed by a few instances of payment players (4 deals) and neobanks (three deals).

Notable WealthTech M&As include

\$272 million ShareKhan by BNP Paribas	\$30 million Walnut by Capitalfloat	\$51.2 million ¹⁴ B2B solution provider Miles Software's acquisition by Ebix
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4 InsurTech deals are fewer

InsurTech acquirers are across industries, including automotive (three deals), payments (two deals), and InsurTechs (two deals).

Notable deals include

Zopper's acquisition by PhonePe (deal size not confirmed)

\$10 million
ArtiVatic's acquisition by RenewBuy

Apart from private funding, the larger players in the ecosystem are also moving on to raising public rounds. Many IPOs in India are on the cards as a bunch of mature FinTech companies have filed or are planning to file for a public listing. This represents a coming-of-age moment for the industry fueled primarily through venture capital flows in the past decade. Now that the avenues for public participation in the FinTech industry's growth are opening up, it might see more traction and sustainable growth moving forward.



A high-level view of FinTech IPOs

Global FinTech companies have had a rough time going public. The US is the largest FinTech hub from the number of startups and publicly listed players' standpoint. In this market, shares in recently listed FinTech companies have fallen an average of more than 50% since the start of the year, and around \$460 billion¹⁵ were collectively lost (as of July 2022) from the all-time highs of these stocks, according to FT report, compared with a 29% drop in the Nasdaq Composite. This decline has echoed across the major FinTech markets. It can be attributed to several factors, including a global bearish market and investors pulling out of the stocks of new platform technology or growth companies.

India is not an exception in this scenario. A quick look into Indian FinTech players' IPOs mimics the global FinTech stock market trend. The decline can be attributed to the global economic and geopolitical events dampening investor confidence, among other variables.

FinTech	Category	IPO date	IPO date % Change (as of 30 June 2022)
Paytm	Payment	Nov-21	-58%
PB	Insurance	Nov-21	-56%
NPST	Payment	Aug-21	-2%
IRIS	RegTech	Sep-17	-52%

Sources: Media reports, PR releases, Value Research

The anticipated IPOs from other FinTech companies such as MobiKwik and EBIXCash, would be interesting to watch, considering the thus far lackluster performance of listed players and bearish equity market. Most likely, FinTech companies would delay the listing further and try to enter at a suitable time.

¹¹<https://www.thehindubusinessline.com/specials/emerging-entrepreneurs/payu-acquires-paysense-for-185-million/article30607923.ece>

¹²<https://inc42.com/buzz/exclusive-perfios-acquires-risk-management-startup-karza-for-80-mn/>

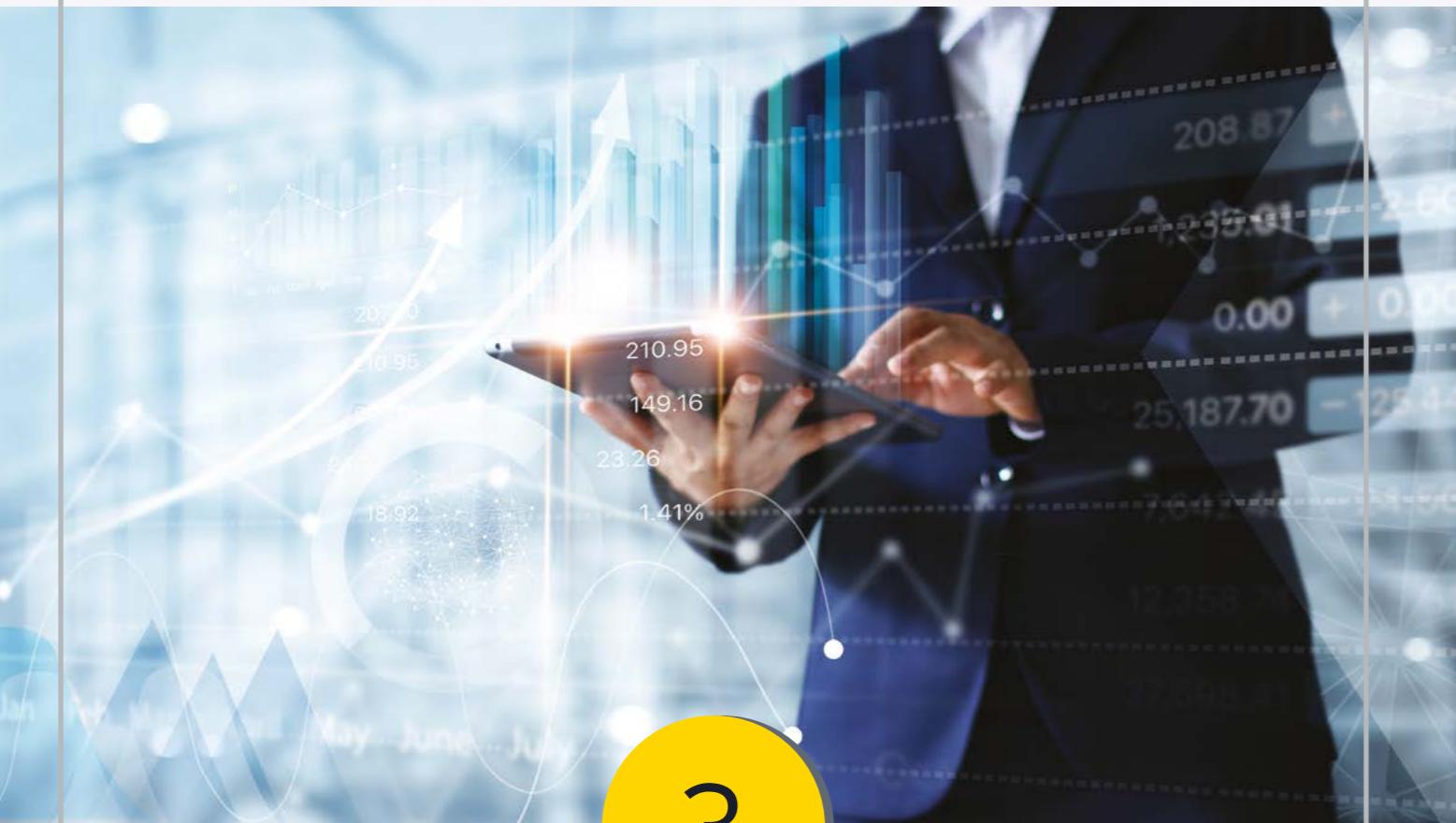
¹³<https://www.thehindubusinessline.com/companies/transunion-acquires-majority-stake-in-cibil/article23114122.ece>

¹⁴<https://www.livemint.com/Companies/Z4clBnVo3b2iEuyf6OrMTL/Ebix-acquires-Miles-Software-for-19-million.html>

¹⁵<https://member.FinTech.global/2022/07/18/nearly-half-a-trillion-dollars-wiped-off-FinTech-valuations-according-to-ft/>

Forces shaping the future

3



FinTech, through a global lens, indicates growth pockets are vibrant in countries with younger populations like India. However, there are a bunch of other factors supporting FinTech growth. Undoubtedly, India is amongst the fastest growing FinTech markets in the world, competing closely with the UK in terms of funding volume and number of startups.

As the Indian FinTech ecosystem matures, the top growth strategies include expanding into new markets, technology investment, improving operating efficiencies, and ecosystem partnerships. At the backdrop, this would largely be influenced by the following factors:

Tailwinds

Figure 7: The Indian FinTech sector growth is driven by several factors



Business Environment

The Indian FinTech market growth is supported by several macroeconomic factors such as India's booming economic growth with rising disposable income, large unbanked and under-banked population, government, and regulatory initiatives, expanding young adult population, improving internet access, and smartphone penetration, and a fast-growing e-commerce marketplace. Some of the other macro factors include:

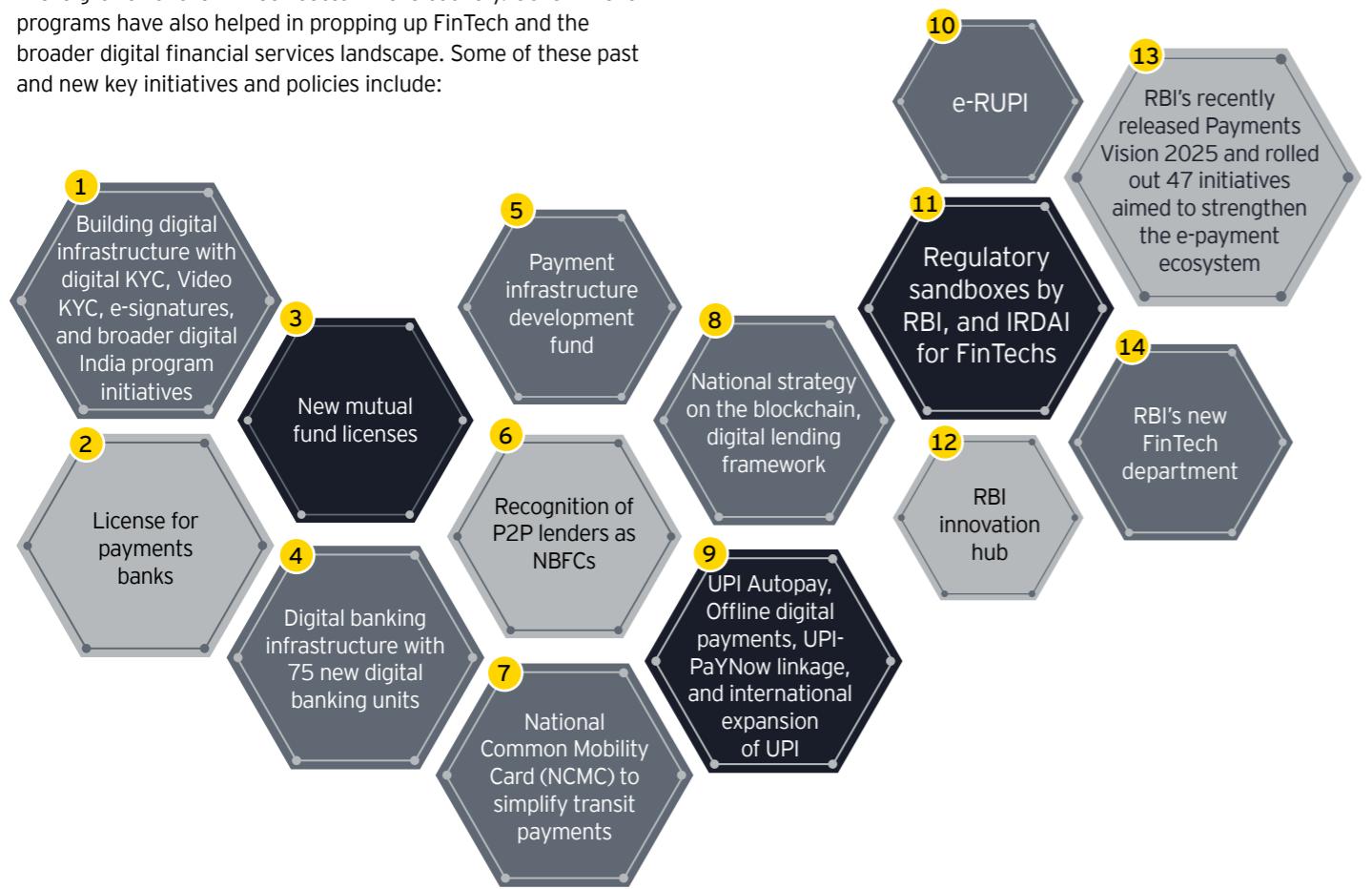
1 Access to Capital

For FinTech companies to grow, the availability of funding through VC and PE firms is imperative. In 2021, India bagged over \$7.8 billion across 363 VC FinTech deals. The overall FinTech funding in 1H2022 reached \$2.47 billion, led by lending of \$0.5 billion, followed by payments of \$0.3 billion. In addition, Wealth, InsurTech, and neobank players are rapidly evolving from the nascent stages to promising critical mass adoption that creates investment opportunities for investors.



2 Regulatory Stance

Financial services regulators have played the role of catalysts in the growth of the FinTech sector in the country. Government programs have also helped in propping up FinTech and the broader digital financial services landscape. Some of these past and new key initiatives and policies include:



International Financial Services Centre (IFSC), an initiative by the government of India (GoI), is intended to encourage foreign investors to participate in India's growth journey. The Gujarat International Finance Tec-City (GIFT City) was the first IFSC that was set up in Gujarat in 2015.

The International Financial Services Centre Authority (IFSCA), which is a unified authority for developing and regulating financial products, services, and institutions in the IFSC, signed a Memorandum of Understanding (MoU) with The Federation of Indian Chambers of Commerce & Industry (FICCI) to establish a FinTech Regulatory Sandbox. The sandbox will provide the FinTech entities with facilities to experiment with proposed solutions in a live set-up with a limited set of real-time customers. As part of the initiative, the GIFT-IFSC granted

authorization certificates to five FinTech firms, including CropData, EdgeVerve, Signzy Tech, UMBO IDTech (Riskcovry), and Qkrishi Quantum, in July 2022. The FinTech firms will bring operations in areas and sectors like agritech, blockchain-powered solutions, unified KYC solutions and customer onboarding digital infrastructure, insurance distribution solutions, and deep-tech quantum-based algorithms. IFSCA additionally exchanged an MoU, with the Department of Space (DoS), GoI, to unlock the large alternative of convergence between FinTech and SpaceTech.

These initiatives have streamlined the governance process, leading to accurate and timely reporting, which is the backbone of governance and RegTechs have been helping industry players become better at this.

Technology and talent

The overall financial services market is undergoing a major transformation, leveraging new and cutting-edge technologies such as blockchain, AI, ML, and cloud infrastructures. Three key technology factors driving FinTech sector' growth include the following:

1 Tech-enabled Industry collaborations

Collaborations between traditional financial services players (primarily banks) and FinTech startups are business as usual now and enabled by the proliferation of APIs and data sharing norms. With limited new licenses, FinTech startups only have the partnership route to go to market, which is welcomed by banks. Government offices, especially Public Financial Management System (PFMS), are looking forward to collaborating with FinTech startups to work on better identity verification solutions to improve the direct benefit transfer processes for effectiveness and transparency.

2 Emerging tech adoption

Identity verification and authentication technologies have been one of the most crucial enablers of digital-only financial services from the consumers' trust and regulators' data compliance perspectives. Biometric identity verification technologies, such as voice, face recognition, and iris scanning, give customers a sense of security. Regulatory support and industry adoption of modern infrastructures and emerging technologies such as blockchain, e-KYC, video KYC, IoT, AI, digital signatures, and account aggregation infrastructures are creating the underlying infrastructure for the future of digital-native financial services.

3 Access to skilled talent

India remains one of the top tech talent hubs on the global stage and that continues to help the emerging technologies develop and improve their application in the problem solving for Indian industries, including FinTech. FinTech companies have also been successful in attracting skilled talent from technology, e-commerce, consulting and professional services, and traditional financial services industries.

Demand and growth enablers

The financial services industry has evolved from vanilla products and services to niche and tailored service offerings powered by data. It recognizes the combined business impact of digital transformation and customer experience focus, which explains why some of the oldest banking institutions in India and digital-native FinTech companies work alongside each other to offer the best digital customer experience. Some of the customer factors include:

1 High Adoption

India's FinTech adoption is one of the highest in the world, according to EY's FinTech Adoption Index 2019 report. Ease of opening accounts, customization to personal goals and needs, and access to a range of intuitive features have enabled this FinTech adoption. FinTech is smartphone-native and usually OS agnostic, which opens wide market opportunities. Their 24/7 availability of services, unlike limited-hour brick-and-mortar financial service companies, adds to the convenience factor. Freemium fee strategies have resonated well for adoption among new and experimental customers who like to get the value out of every rupee spent.

2 Largely underserved market

As of April 2022, there were 1,142 million wireless subscribers in India, according to the Telecom Regulatory Authority of India (TRAI)¹⁶. It comprises 624 million urban and 518 million rural subscribers (TRAI, 2021). By 2030, India will add 140 million middle-income and 21 million high-income households, driving the demand and growth for the India FinTech space. Beyond this conventional target audience, India offers massive opportunities for FinTech players in the underserved Bharat segments in tier-II and tier-III towns. Low penetration of insurance is also a big challenge to be addressed. According to the World Inequality Report 2021, the top 10% of the population in India owned 57% of the country's national income in 2021, and the top 1% earned more than one-fifth (21.15) of the country's total national income, while the bottom 50% made just 13.1%¹⁷.

3 Account Aggregation and Data sharing

Allowing secure access to consumer data with licensed and authorized service providers, through APIs (application programming interface), is allowing banks and FinTech to develop new apps and services tailored to the customers' needs. Account aggregator framework is likely to build consumers' confidence in the controlled data sharing for better financial services and a holistic view of their financial well-being.

¹⁶https://www.trai.gov.in/sites/default/files/PR_No.40of2022.pdf

¹⁷India very unequal; top 1% own 33% of the country's wealth: World Inequality Report - BusinessToday



Headwinds

While the tailwinds would help, FinTech has their fair share of challenges. Some of the key issues and challenges the industry faces are highlighted below:

Figure 8: Some of the major challenges in the Indian FinTech space



1 Geo-political volatilities

A report¹⁸ from Pareto Economics and Fintrail highlights that geopolitical uncertainties harm the global FinTech industry's growth prospects. It includes their potential opportunities to expand beyond domestic markets, attracting funding from investors keeping in mind the policy restrictions on the source of funding, FinCrime mandates, bans and embargos, and outsourcing restrictions that may restrict B2B tech provider FinTech. These risks have been accentuated in the last 12 months more than ever before. Smaller FinTech companies eyeing global markets are likely to be impacted more while large FinTech companies can still manage these risks on the back of their dedicated compliance, FinCrime, and risk teams.

2 Increasing data security and privacy risk

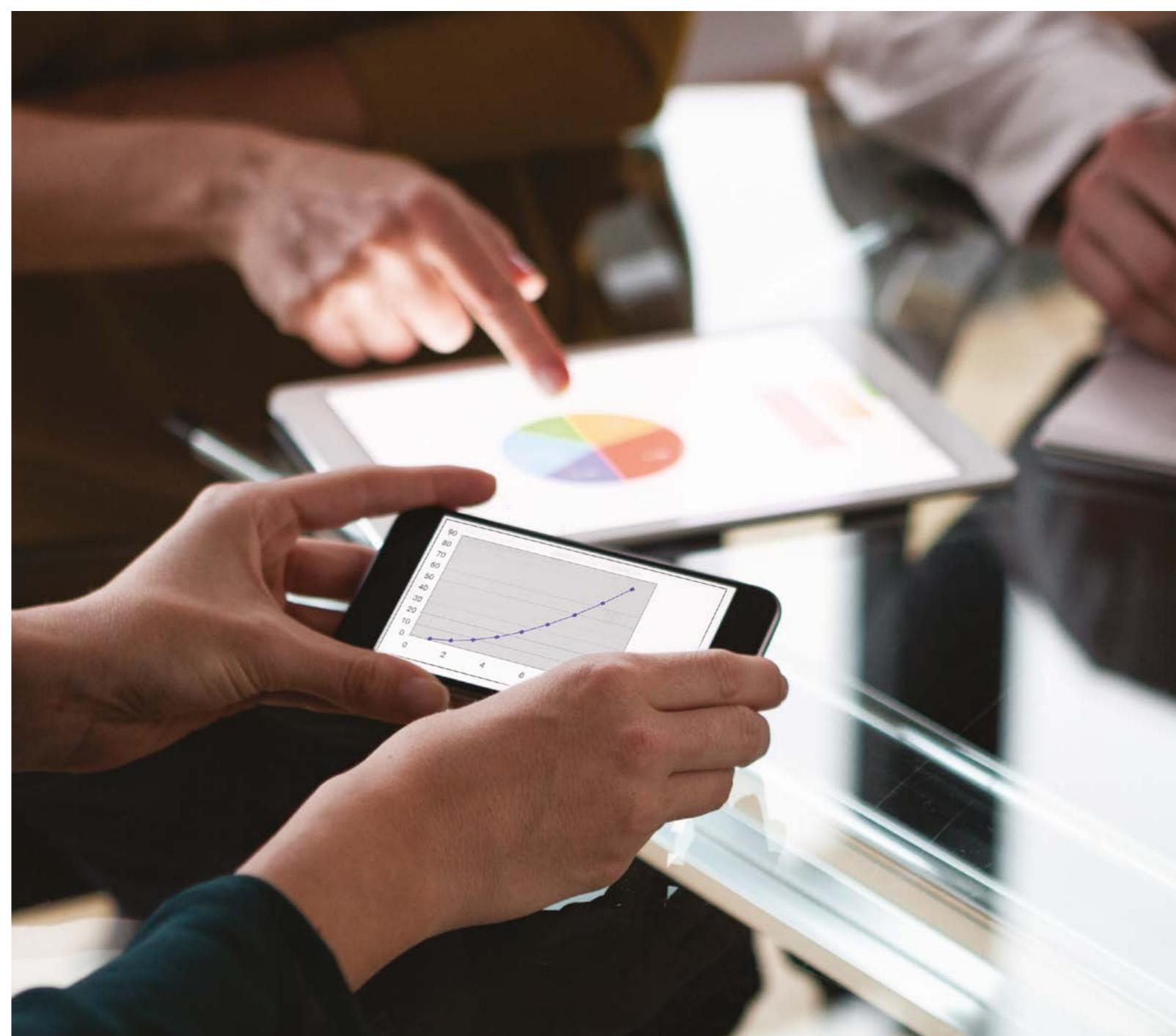
Data and related technologies remain the backbone of FinTech. However, data leaks, platform downtime, fraud, and information theft have amplified the risks faced by FinTech. The rising reputational and economic cost of breaches is not limited to traditional financial services firms. Developing a strong mechanism to protect data is of paramount importance, and players shall have to invest deeply in mechanisms to control this risk and comply with regulatory requirements for data security.

4 Low financial literacy and awareness

We know that more than 70%¹⁹ population of India lives in the villages, and the use of these FinTech platforms is largely concentrated in the urban segment. Moreover, according to a SEBI report, only 27%²⁰ of Indians are financially literate, which is a major bottleneck to onboarding new and informed customers. FinTech is expected to make its way to smaller cities and towns, innovate for these masses, and create awareness and financial literacy.

5 Varied adoption with patches of overbanked and underbanked segments

Indian business ecosystem is majorly dominated by MSMEs, largely sitting on the fence about digital adoption. However, the pandemic duration has provided a nudge. According to a recent survey by CRISIL, around 65% of MSMEs surveyed had adopted or improved the use of digital channels. On the consumer side, the variation in technology adoption among urban and rural consumers is also a challenge. Notably, telecom penetration in rural India is just 58.2%²¹ vs. 134.7% in urban India. Without telecom penetration, FinTech does not have its underlying infrastructure in these areas.



¹⁸A-beginners-guide-to-geopolitical-risk-and-how-its-impacting-fintech.pdf (pareto-economics.com)

¹⁹https://www.business-standard.com/article/economy-policy/70-indians-live-in-rural-areas-census-111071500171_1.html#:~:text=The%20rural%E2%80%93urban%20distribution%20is,from%2072.19%25to%2068.84%25

²⁰<https://www.financialexpress.com/money/the-growing-significance-of-financial-literacy-in-india-gaps-and-opportunities/2410548/>

²¹https://www.trai.gov.in/sites/default/files/PR_No.40of2022.pdf

Key trends

4

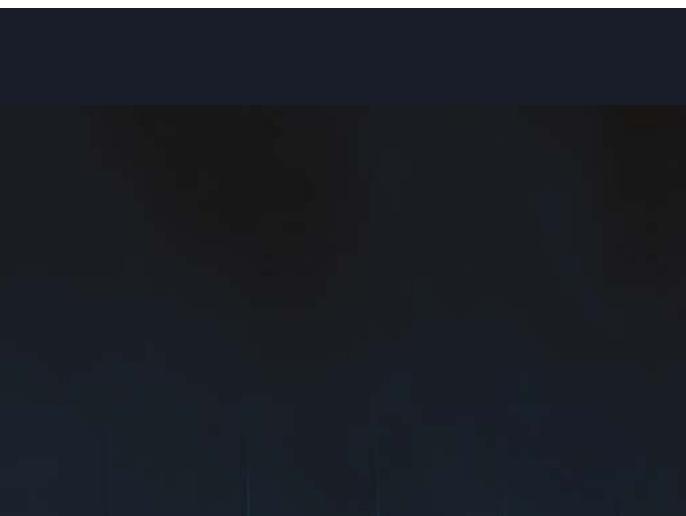
FinTech has become a ubiquitous expression for technology-based innovation in financial services. We increasingly see more collaboration from and innovation driven by incumbent banks, prominent technology players, and even regulatory organizations in the market. This is especially true for the Indian FS market, as is evident from a few key trends we have tracked. We combined our secondary research and advisory capabilities with select industry veteran interactions to identify key trends shaping the Indian FinTech landscape in 2022.

-
- 1 Digital adoption on an overdrive: Unexpected benefit of the pandemic
 - 2 Horizontal expansion: bridge to PayTech profitability lacuna
 - 3 Neobank: Partnerships driven by hyper-personalized products
 - 4 Ecosystem banking: Capturing value locked in ecosystems
 - 5 InsurTech: a new wave of product and distribution innovation
 - 6 Alternative investment platforms: finding an opportunity in the equitymarket slowdown
 - 7 Regulation and compliance as the Achille's heel of India FinTech

Digital adoption on an overdrive: Unexpected benefit of the pandemic

Overview

An organic and collaborative ecosystem drives digital adoption, supported by key government initiatives. Quick adoption of emerging technologies is an enabler for the growth of tailored product offerings and FinTech initiatives. The major catalysts for FinTech adoption in India are the digital-savvy population with high internet penetration (47% as of 3Q21), the ability to target and service niche customer segments with tailored products, a supportive regulatory landscape, and the growth of MSMEs (MSME % contribution to GDP – ~27% in FY21). The digital infrastructure foundation laid by JAM, the development of UPI, and the India Stack have created new opportunities for many of these growing FinTech startups.



The current state of digital adoption in India

The COVID-19 pandemic has led to an inevitable surge in leveraging digital technologies. Consumers have not only dipped their toes into the online world but have also taken the plunge to integrate digital into their lifestyles (through digital payment, investment tech, online-only insurance, etc.). The adoption extends beyond the consumer space as well. Micro, small and medium-sized enterprises (MSMEs) are increasing the use of FinTech services. These businesses constitute a distinct customer segment, with needs that differ from those of consumers and large corporations.

India's digital economy is expected to witness exponential growth to \$800 billion²² by 2030 on the back of digital public infrastructure, the development of UPI, and the COVID-19 pandemic.

Figure 9: Projected 9X growth in Indian digital economy (\$ billion): (2020 –2030)



Figure 10: Impact of financial inclusion

Indicator	2015	2020
Number of commercial bank branches per 100,000 adults	13.5	14.7
Number of deposit accounts with commercial banks per 1,000 adults	1536	2031
Number of loan accounts with commercial banks per 1,000 adults	154	267
No. of mobile and Internet banking transaction per 1,000 adults	183	13615

Source: SBI report

Figure 11: Quick facts about India's digital economy India's digital economy: Quick facts^{23,24}

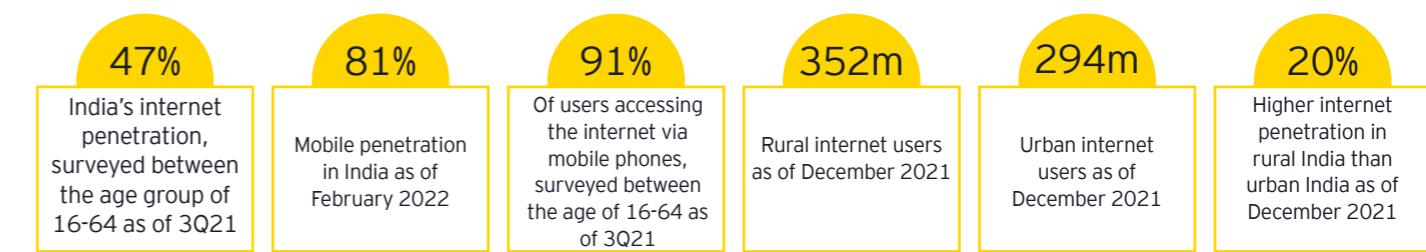
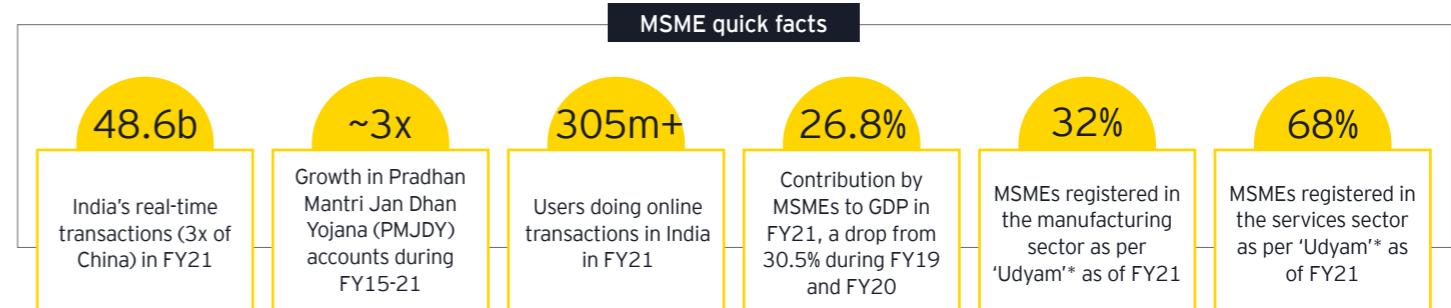


Figure 12: India's digital transaction and MSME Quick Facts



Survey results: 2020 SMB Digital Maturity Study**



*Ministry has replaced the process of filing of Udyog Aadhaar Memorandum, with 'Udyam' registration on a portal developed by this Ministry based on composite criteria of classification of MSMEs notified vide Notification dated 26.06.2020

**The study is based on a survey of SMBs in the Asia Pacific, and was conducted by IDC and commissioned by Cisco. The 2020 SMB Digital Maturity Study gathered and analyzed data from >1,400 SMBs across 14 markets in the APAC to assess the challenges and opportunities faced by companies during their digital transformation journey. The 14 markets comprised Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Thailand, Taiwan, and Vietnam.

Source: Inc42, GSMA Intelligence, Nielsen's Bharat 2.0 Study, MSME Annual Report 2021-2022, Digital adoption by Indian SMBs - IDC and Cisco Study, EY Analysis

²²<https://www.timesnownews.com/business-economy/industry/indias-digital-economy-to-touch-usd-800-bn-by-2030-fm-article-90173002>

²³<https://inc42.com/reports/state-of-indian-FinTech-infocus-bnpl-q1-2022-report/>

²⁴<https://datareportal.com/reports/digital-2022-india>

Drivers of accelerated digital adoption



Key drivers toward accelerated digital adoption are increased regulatory support and favorable digital public infrastructure, with UPI being the biggest success story (6.3 billion transactions in July 2022, an all-time highest number of transactions since its launch six years ago). This pace of digitalization has accelerated during the COVID-19 period.

Regulatory push

- ▶ Scheduled Commercial Banks to set up **75 Digital Banking Units**
- ▶ A lower transaction cost entailing merchant adoption of digital modes of payment across categories

Digital public infrastructure

- ▶ Digital India, Jan Dhan-Aadhaar-Mobile (J-A-M) linkages programs, and India Stack to promote digital infra development
- ▶ Introduced a dedicated portal to offer **easy registration** for potential **startups**

Development of UPI

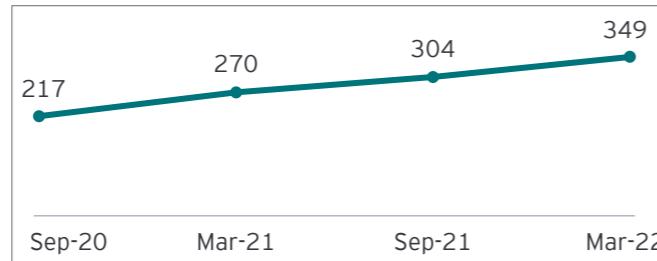
- ▶ UPI eyeing international expansion with integration with Singapore's PayNow
- ▶ **UPI Payments:** UPI transactions as a % of overall digital payments comprise almost equal (47%)* to combined debit (21%)* and credit card (26%)* transactions. It includes UPI Autopay, UPI enabled IPO payments, Recurring payments, UPI offline payments

COVID-19 Tailwinds

The COVID-19 pandemic has accelerated the adoption of digital financial products and services among India's SMEs driving the demand for FinTech SaaS solutions, such as app-based accounting and bookkeeping, no-code payment aggregation, and equity cap table management. Even BigTechs, such as Google, Amazon, and WhatsApp, have tweaked their offerings to provide tailored services in India like Google Pay, Amazon Pay, and WhatsApp Payments

The RBI-Digital Payments Index (DPI) continues to demonstrate steady growth in the adoption and deepening of digital payments across the country. The index series since 2020 is as under:

Figure 13: RBI - DPI Index



Source: RBI

The sub-parameters against which the digital payment index is measured are:

- ▶ Payment enablers (mobile, Aadhar, bank accounts, merchants)
- ▶ Payment infrastructure - demand side: debit cards, credit cards, prepaid payment instruments, FASTags
- ▶ Payment infrastructure - supply side: bank branches, business correspondents, ATMs, PoS terminals, QR codes, intermediaries
- ▶ Payment performance: Volume, value, unique users, currency in circulation, cash withdrawals
- ▶ Consumer centricity: Awareness, declines, complaints, frauds, system downtime

Impact on current products and offerings

Figure 14: Impact on current products and offerings.

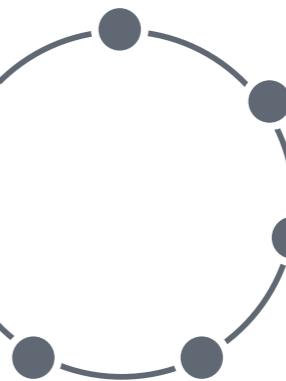
Quick digital adoption is enabling tailored product offerings and financial inclusion initiatives

Innovation in credit products

The emergence of new tailored credit products including, buy-now-pay-later, prepaid cards, low/no-cost checks, payday alternative loans, credit builder loans, deposit-secured credit cards, microloans, and rent-to-own products

Credit underwriting

Open banking and alternative credit data to build a credit score, providing loan cash flow and business growth-based assessments, AI-based instant credit worth assessment and loan disbursal, insights-as-a-service for risk profiling, and early warning system



Innovation in saving products

Addition of new functionalities to regular savings products and getting customers to invest in deposit products; new saving products like automatic savings, the price linked savings, goal-focused savings

Financial literacy

Education blogs, videos on streaming platform channels, digital pocket money apps for younger audiences, online seminars, virtual trading simulators

Innovation in SME offerings

Addition of functionalities for SMEs and MSMEs like money management and expense optimisation, subscription payments to regular transactions accounts

Source: EY Analysis

InsurTech

Drone surveillance-based crop insurance, visual inspection with computer vision, trade credit insurance, digital persona-based tailored and bite-sized insurance products, A digital push by the government within health insurance is adding to the tailwinds

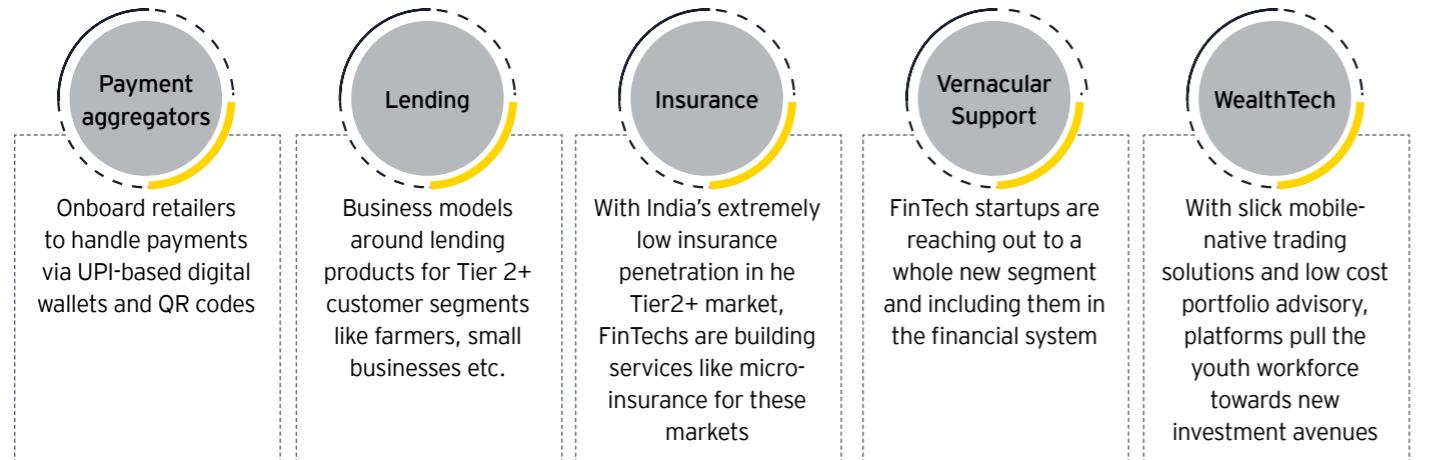
Mobile driven innovation

Mobile money is becoming an alternative to bank accounts and payments; it offers increased access to accounts, more features for account management and financial analytics

On the backdrop of digital adoption, FinTech startups are developing bite-sized products and new innovative solutions to serve Tier 3+ market



Figure 15: Innovative FinTech solutions



Still, there is a huge gap/opportunity (as of July 2022):

- ▶ ~200 million²⁵ Indians are unbanked as per Global Findex Database 2021
- ▶ The financial inclusion index as of March 2022 is 56.4% which means there is a massive gap of 43.6%^{26,27}
- ▶ In India, only about 12% of adults—fewer than 20% of account owners—made a digital merchant payment in 2021. However, two-thirds of those who made a digital merchant payment did so for the first time after the onset of COVID-19. Also, the share of account owners with an inactive account in India is 35% which is the highest globally in 2021. Nearly 18% (~81.4 million) of Jan Dhan accounts are dormant as of 27 July 2022
- ▶ Insurance penetration is abysmally low, ~4.2% which is far less than the global average (7.4%) in FY21, according to Economic Survey 2022²⁸
- ▶ Retail mutual fund AUM as % of GDP is less than 17%²⁹ vs. the global average of 63%³⁰ as of December 2021³¹
- ▶ The number of active dematerialized (demat) accounts in the country grew 63% in the past 12 months to 89.7 million in the financial year 2021-22 (FY22). Although India's recent surge in Demat accounts is notable, there is still a huge gap between Indian retail investors' equity market participation (4.6%) vs. other major economies like the US (32% in 2018) and China (11.4% in 2019).³²

What is next?

- ▶ Though the government's Jan Dhan Yojana program had brought an additional 450 million users into the formal banking system from 2014 to 2022, the share of inactive accounts in India remained about the same between 2017 and 2021. Out of globally 1 billion adults who have an account made no digital payment, 540 million are from India in 2021. Digital adoption is likely to play an important role in bridging the FS penetration gap³³.
- ▶ The increasing customer expectations are likely to drive the demand for digital banking and Banking-as-a-service (BaaS).
- ▶ Tailwinds from the government via the budget announcements also created the potential for BaaS intermediaries (majorly FinTech), which play a crucial role in the BaaS ecosystem as enablers of scale and faster go-to-market.
- ▶ RBI's recent 'Payments Vision 2025' will boost the digital payments drive, which targets to increase the number of payments by more than 3x by 2025³⁴ and target to increase the number of registered users for mobile-based transactions at a CAGR of 50% by 2025.
- ▶ The recent budget announcements are encouraging steps toward using technology to tackle financial inclusion. While more details on the regulatory approach are awaited, the ecosystem is poised to build a new face of banking in India. The future of digital banking is thus promising.
- ▶ As the Indian FinTech and digital FS adoption mature, the increased collaboration between banks and FinTech would lead to massive growth in the banking industry. It would enable banks to become more agile in their functioning and respond to shifting customer needs by embedding partner solutions into their programs while lowering their capital investment requirements and software development risk. FinTech would also benefit from this arrangement through a larger client base and improved market credibility for themselves.
- ▶ In both textual and voice formats, India's linguistic diversity and an English literacy barrier in the semi-urban and rural areas require FinTech to improve their vernacular support. A push for regional languages and voice-enabled capabilities will help in the adoption.

²⁵<https://www.worldbank.org/en/publication/globalindex/Report>

²⁶https://www.rbi.org.in/scripts/FS_PressRelease.aspx?prid=54133&fn=2754

²⁷<https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR635FII008AC80BF27C48988B1248959521F278.PDF>

²⁸<https://economictimes.indiatimes.com/industry/banking/finance/insure/insurance-penetration-calls-for-improving-financial-literacy-and-customer-trust-say-industry-leaders-ahead-of-national-insurance-awareness-day/articleshow/92490906.cms?from=mdr>

²⁹<https://cafemutual.com/news/industry/24323-penetration-of-mutual-funds-in-india-goes-up-to-17-of-the-gdp#:~:text=Mutual%20fund%20AUM%20to%20GDP,to%2016.6%25%20in%20December%202021>

³⁰<https://cafemutual.com/news/industry/24323-penetration-of-mutual-funds-in-india-goes-up-to-17-of-the-gdp#:~:text=Mutual%20fund%20AUM%20to%20GDP,to%2016.6%25%20in%20December%202021>

³¹<https://cafemutual.com/news/industry/24323-penetration-of-mutual-funds-in-india-goes-up-to-17-of-the-gdp#:~:text=Mutual%20fund%20AUM%20to%20GDP,to%2016.6%25%20in%20December%202021>

³²<https://www.hdfcsec.com/hsl/docs/FinTech%20Playbook%20-%20E2%80%98Nudging%2E2%80%99%20the%20long%20tail%20of%20standalone%20brokers%20-%20HSIE-202110202205014903833.pdf>

³³<https://www.worldbank.org/en/publication/globalindex>

³⁴<https://inc42.com/buzz/rbis-payments-vision-2025-increase-digital-transactions-by-3x-regulate-big-tech-players/>

Digital adoption interview Q&A

Praveena Rai, Chief Operating Officer, NPCI



Ms. Praveena Rai is the Chief Operating Officer of NPCI (National Payments Corporation of India). An ex-banker, she is now responsible for running the business, including products, operational and technical delivery. Passionate about payments and technology as drivers of economic value, she helps NPCI attain its strategic objectives of offering a simple, secure, and seamless digital payments experience to consumers and users across the ecosystem – that can lead to rapid digitalization of India.

Q What has been the role of digital public infrastructure and positive government/regulatory push in furthering digital adoption of financial services in India?

- A**
- ▶ “Digital Public Infrastructure (DPI) refers to digital solutions that enable basic functions essential for public and private service delivery, i.e., collaboration, commerce, and governance. Think about our existing shared public infrastructure such as roads and education, but online– that is DPI in a nutshell.”
 - ▶ India has set itself an ambitious target of doubling its economy in five years to \$5 trillion. Without having a world-class DPI in place, the ambitious target would not be able to achieve. Particularly in financial services, with DPIs in place; we will be able to deliver a great consumer experience via digital inclusion to all the citizens of India.
 - ▶ With DPIs like UPI and Aadhaar have galvanized digital inclusion across India. Consumers' journey for KYC (eKYC), investments (UPI/IPO, cKYC), insurance (digital insurance) and credit (digital lending) have been designed under progressive regulatory guidelines to keep up with the market demand of digital consumers. These would not have been possible without robust DPIs in place.
 - ▶ DPI in India should not be only public infrastructure but should be “Best-in-class” for public goods. With the vision to become the best payments network globally, NPCI has contributed to Nation building exercises by providing the best-in-class digital payments infrastructure to the nation. The workforce at NPCI takes immense pride in contributing to nation-building exercises.

Q Has tailwinds from the pandemic proven to be a shot in the arm for the growth of FinTech and digital financial services adoption?

A The pandemic has given a boost to the adoption of digital payments in the country. Digital transactions saw a growth of 93% in two years post the pandemic struck. It has resulted in the mass inclusion of factions of the society that were ill-served by traditional financial methods. The usage of digital and contactless payments saw a sharp surge during the pandemic, as they offered safer ways to transact financially. The pandemic has caused a habit change as well as infrastructure deployment, which is further increasing the share of digital payments in the country. Apprehensive customers initially feel more confident after a couple of transactions they were forced to do during the pandemic. This trigger of habit change has made digital payments a default for many who earlier used to rely heavily on cash transactions.

Q Will digital adoption at scale usher in FinTech 2.0, enabling customer-centric product offerings and financial inclusion initiatives?

A FinTech 1.0 majorly catered to the already digitally savvy customers who adopted the digital financial solution for convenience. FinTech 2.0 should focus on the next billion by offering simplified products which use low-cost technology via strategic partnerships with incumbents. FinTech 2.0 will see a deepening penetration of digital payments due to the usage of more intelligent and intuitive customer interfaces. For example, massive adoption of UPI was seen in the FinTech 1.0 wave, now solutions like 123Pay, Aadhaar-based KYC, use of UPI numbers have the potential to create a massive impact amongst the less digitally savvy India. Voice/conversational-based payments and 123Pay will be the next big thing that will see adoption greater than the current UPI customer base. It offers convenience, simplicity, and a more intelligent payment experience which would be accepted by most of India.

Q What are some of the most pressing challenges faced by FinTech and banks today which need attention? What role will policymakers have in addressing some of these challenges?

A The major challenge faced by FinTech and banks today is to match the expectation of growth and customer experience. There is a critical balance between frictionless experience and the technical risk which comes along with it. Creating awareness amongst users for the safe use of technical products is the key. Running awareness campaign to prevent people from becoming gullible to miscreant activities are important. NPCI has also played a critical role in its “UPI Chalega” campaign.

Q What excites you the most about India's digital growth story in the next couple of years?

A India stack becoming a global stack. That is how the country has built one of the world's most robust and comprehensive digital public-good platforms as the foundation of Digital India. The introduction of ONDC and OCEN as DPI will revolutionize digital India's growth story in the next couple of years. Inter linkage with existing platforms like Aadhaar, and UPI will bolster the growth of both platforms. These will drive ease of access to doing business with MSMEs and small merchants.

Revolution in the digitization of retail consumers and extension of it is in the small businesses and MSMEs have only explored small potential. DPIs will provide ease of access to credit to MSMEs and small merchants, which will stimulate them to go fully digital. Regulator's vision of linkage of RuPay credit card with UPI and in-turn other credit products will fuel the growth as more than 50 million end merchants will now have access to consumers' credit for performing the transactions. So, digital credit for merchants as well as consumers will propel an all-encompassing digital economy, provided we seize the right opportunities. These DPIs will enable the creation of new business models across industry sectors as all parts of the supply and demand sides get digitized.

Horizontal expansion: bridge to PayTech profitability lacuna

Overview

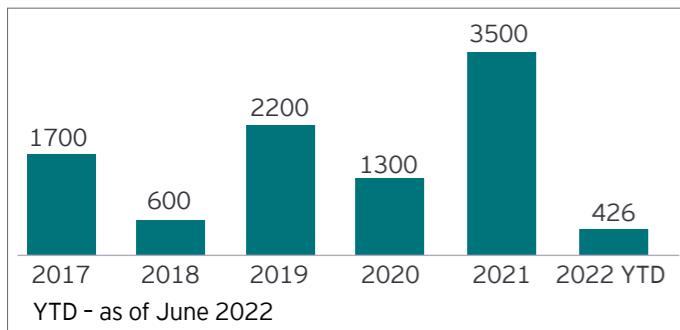
The dynamic and accelerated development of a payments ecosystem, facilitated by increased adoption of technology and innovation, supports not only the growth in digital payments but also in the availability of a bouquet of safe, secure, innovative, and efficient payment systems.

Digital Payments in India have seen widespread adoption - 216% growth in total digital payments volume in March 2022 as compared to March 2019. The country topped digital payments in terms of real-time payment transactions in 2021, representing more than 40%³⁵ of global transactions. According to RBI, a total of 72 billion digital payment transactions were recorded in FY22 as compared to 43 billion in FY21³⁶. Adoption of digital payments was growing before the onset of the COVID pandemic, but the steps taken by RBI along with additional thrust provided by the pandemic have accelerated the shift, leading to a dramatic increase in contactless and online payments – 110% year-on-year (y-o-y) growth in UPI volume in April 2022.

Payment funding trend

Digital payments FinTech has been the highest funded and pioneer of the FinTech revolution in India. In 2021, payment startups attracted ~\$3.5 billion³⁷, recording a growth of 169%³⁸ as compared to overall funding in 2020, representing 44% of the year's FinTech funds. They included large rounds by companies like Pine Labs (\$700 million)³⁹, Razorpay (\$535 million)⁴⁰, and Cred (\$547 million)⁴¹, among others.

Figure 16: RBI - DPI Index



Source: Tracxn, EY analysis

³⁵<https://inc42.com/buzz/india-tops-the-world-in-real-time-payment-volumes-in-2021-report/#:~:text=Share%20story-,India%20Tops%20The%20World%20In%20Real,Payment%20Volumes%20In%202021%3A%20Report&text=India%20led%20the%20world%20in,country%2C%20according%20to%20a%20report>

³⁶<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>

³⁷<https://economictimes.indiatimes.com/tech/technology/indian-FinTech-firms-will-handle-1-trillion-in-assets-by-2030-report/articleshow/93457566.cms>

³⁸<https://economictimes.indiatimes.com/tech/technology/indian-FinTech-firms-will-handle-1-trillion-in-assets-by-2030-report/articleshow/93457566.cms>

³⁹<https://www.businessstdtoday.in/entrepreneurship/news/story/pine-labs-acquires-majority-stake-in-payment-solution-provider-mosambee-329651-2022-04-13>

⁴⁰<https://scoop.market.us/a-bumper-year-for-indian-FinTechs-in-2021-good-times-to-last/>

⁴¹<https://www.businessstdtoday.in/latest/corporate/story/cred-raises-usd-251-mn-in-series-e-round-valuation-doubles-to-usd-4-01-bn-309746-2021-10-19>

Key drivers of PayTech adoption in India

Several key drivers that have contributed to this growth include the following:

- ▶ **Increased digital adoption:** India witnessed improved mobile internet and banking penetration with COVID-19-induced growth in digital payments adoption resulting in 99% growth in unique users of mobile banking in September 2021 as compared to March 2019
- ▶ **Regulatory push and government support:** The payment landscape in India has evolved on the back of supportive government policies and regulatory initiatives, and new business models.
- ▶ **Instant payments growth:** Reducing cash payments and growing low-cost real-time payment methods (e.g., UPI, Bharat Bill Payment System - BBPS, RuPay, QR code)
- ▶ **Demand from tech-savvy users:** Rising expectations of streamlined payment transactions by the tech-savvy millennial population and Small and Medium-Sized Enterprises (SME) (e.g., e-RUPI, Innovation led by SoftPoS, and Near-field communication i.e., NFC)
- ▶ **Payment players can offer solutions beyond payments to unlock new revenue streams for profitability:** Payment service providers are well-positioned to leverage investment in existing customer interfaces to capitalize on some customers' willingness to pay more for value-added services

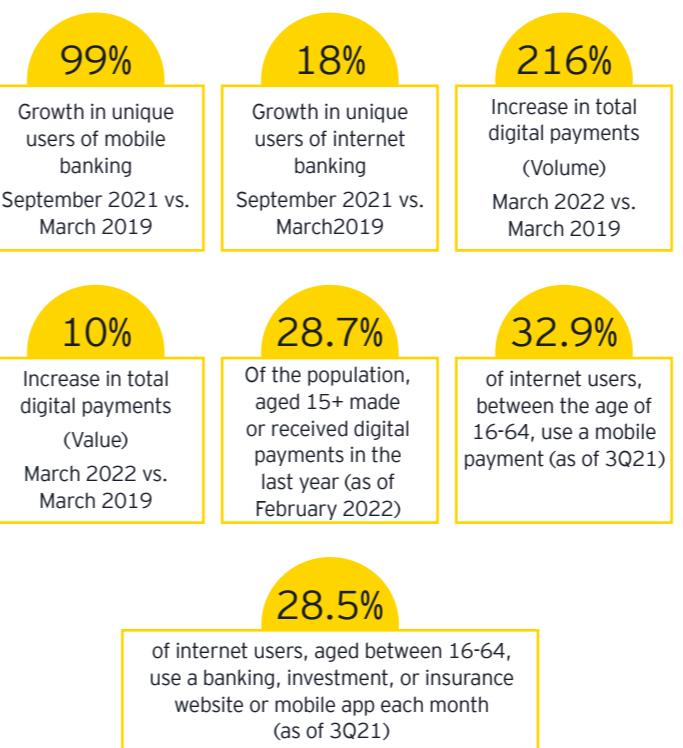
These drivers translated into widespread adoption and growth of diverse payment methods, including gateways, wallets, bill payment solutions, POS, P2P payments, and software and API solution players. In addition, COVID-19 has been a major driver jolting people towards higher adoption of digital payments.

1 Increased digital adoption

India's growing digital economy has been an impetus for increased digital payment adoption. Induced by COVID-19, the industry and society have been undergoing a major behavioral transformation toward making / accepting / facilitating digital payments. FinTech companies are expanding their business scope from payment facilitators to become industry participants, providing a host of financial services. Increased regulatory efforts have been initiated toward bringing critical payment intermediaries into the formal/supervised framework.

There has been increased contactless mode of payments enabled by regulatory flexibility and innovative technologies mainly driven by the COVID-19 situation. Another significant trend was the increased digital payment adoption by small businesses. As per RBI, there has been a 500% increase in merchants accepting digital modes of payments during the half-year ended September 2021 as compared to the half-year ended March 2019. In the case of UPI alone, there is an increase of more than 1,200%⁴² over the same period. There has also been a significant rise in the deployment of payment touchpoints driven by the implementation of the Payments Infrastructure Development Fund (PIDF).

Figure 17: Quick facts on mobile banking and internet banking penetration in India



Source: RBI, Groupe Speciale Mobile (GSMA) Intelligence, GWI (A consumer insights research company), World Bank

2 Regulatory push

The regulatory landscape for payments, led by RBI, welcomes, and supports innovations and new business models. RBIs recently announced, 'Payments Vision 2025', which aims to establish India as a powerhouse of payments globally. The core theme is: '4Es' E-Payments for Everyone, Everywhere, and Everytime, with the vision to provide every user with safe, secure, fast, convenient, accessible, and affordable e-payment options. Major goalposts for the payments vision 2025 include Integrity, Inclusion, Innovation, Institutionalization, and Internationalization. Some of the recent initiatives include:

- ▶ Interoperability mandate from the regulator drove widespread adoption across the top three UPI apps (PhonePe, Google Pay, PAYTM), along with support from the government in reimbursing costs for stakeholders to allow zero MDR for end merchants. Govt/RBI-backed initiatives like Payments Infrastructure Development Fund (PIDF) and NPCI innovations like offline UPI are expected to boost digital payment infrastructure in rural areas.
- ▶ RBI has allowed users to link their credit cards to UPI platforms. The feature will be soon launched for the RuPay credit card users for their convenience and enhance the scope for real time digital payments
- ▶ To ensure safe online payments, RBI has introduced card-on-file tokenization. RBI has mandated all authorized card networks to issue merchant-specific tokens against card details, which is its new idea for safe online payments. The central bank expects the payments ecosystem of banks, card networks, and payment aggregators/payment gateways to be ready to accept token-based card processing as an alternative. Tokenization refers to the technology of substituting sensitive card data with random numbers. The merchant sites get this random set of numbers while processing is done by the card-issuing bank or the payment network such as Visa, MasterCard, or RuPay.
- ▶ There has been an increased push from regulators toward global integration for smooth cross-border payment processes. Indian banks have also partnered with various international exchange houses to provide faster inward remittance services to Indians residing abroad. Global cross-border remittance is a growing opportunity, with payment volumes expected to cross the \$156 trillion⁴³ mark in 2022. Banks would require technology to cater to this growth, something that FinTech companies are already providing.
- ▶ The Monetary Authority of Singapore (MAS) and the Reserve Bank of India have announced plans to link Singapore's PayNow and India's Unified Payments Interface (UPI) real-time payment systems by July 2022⁴⁴.
- ▶ The emergence of FinTech and strategic initiatives like the Money Transfer Service Scheme (MTSS) has eased cross-border payments. FinTech solutions can further boost cross-border remittances, majorly for high volume and low-value payments.

This has resulted in many Indian payment players also expanding globally, especially in the Southeast Asian region. For instance, Pine Labs, a major payment player in India, has plans to expand its operations in Southeast Asia, Malaysia, and the Middle East. Also, global players are entering the Indian market with advanced cross-border payment features, e.g., iPID, a Singapore-based FinTech firm dealing in international payments, recently announced its launch in the Indian market, where it will seek to make cross-border payments with only a phone number.

The RBI, as part of the Second Cohort under the Regulatory Sandbox (RS) with 'Cross Border Payments' as of July 2022⁴⁵, has received applications for their product testing. A total of eight entities were commenced for testing out of which four entities were found acceptable and could be considered for adoption by regulated entities. The details of the four entities which were found acceptable under this Cohort were:

Entity	Description
Cashfree Payments India Private Limited	The product extends a cross-border payment platform to facilitate the purchase of assets listed on foreign exchanges (e.g., NASDAQ) like publicly listed shares and exchange-traded funds, (ETFs) and units of mutual funds, and securities by Indian investors via local payment methods.
Fairex Solutions Private Limited	The product provides an aggregation platform for leading cross-border payment providers of outward remittance.
Nearby Technologies Private Limited	The product facilitates routing the inward cross-border remittance to the beneficiary's Aadhaar number as a virtual bank account using the existing Rupee Drawing Arrangement (RDA) mechanism.
Open Financial Technologies Private Limited	The product proposes a Blockchain-based cross-border payment system, leveraging the current infrastructure, and ensuring frictionless and tamperproof monitoring capabilities.

Source: RBI

- Central Bank Digital Currency (CBDC) will significantly bring down the time taken for cross-border transactions and make transactions more real-time. The RBI plans to come out with a CBDC using blockchain technology in FY23. However, owing to the data security and privacy challenges, the government plans to go in a careful and calibrated, and nuanced manner

⁴⁵https://www.rbi.org.in/scripts/FS_PressRelease.aspx?prid=54057&fn=9
⁴⁶<https://offers.worldpayglobal.com/rs/850-JOA-856/images/ENGPR2022.pdf>
⁴⁷<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>
⁴⁸<https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?id=1202#S3>
⁴⁹<https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?id=1202#S3>
⁵⁰<https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?id=1202#S3>
⁵¹<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/>
⁵²<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>
⁵³<https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PSSBOOKLET93D3AEFDEAF14044BC1BB36662C41A8C.PDF>
⁵⁴<https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics>

3 Instant payments growth: Digital payments are enjoying a jetpack ride

Reducing cash payments and growing low-cost real-time payment methods (UPI, BBPS, NETC, Cross border)

As per the Worldpay report, India led the world in the largest daily real-time payments volume in 2021 with 70.2 million, followed by China with 42.8 million⁴⁶. India continues to show strong real-time payment growth.

UPI is now the leading form of retail merchant payments (Person-to-Merchant - P2M disguised as Peer-to-Peer - P2P payment) by value and volume, comparable to credit cards and debit cards, representing a huge uptick in the number of banks going live on UPI from 2016 to 2021 reaching 297 in 2022. These include all public and private banks in India. The value of transactions crossed \$25 billion in 2019, and massive growth in 2022 reached \$111 billion.

As per RBI, overall Indian digital payment by volume stands at 72 billion as of FY21-22, with an overall transaction value of INR 1,744 trillion (\$24 trillion)⁴⁷. Riding on the back of growing acceptance of existing digital modes and novel payment offerings such as UPI, BBPS, and Buy-Now-Pay-Later (BNPL) schemes, the value of digital payments transactions in India is set to increase by more than 3 times by 2025⁴⁸.

RBI's 'Payments Vision 2025' aims to curb the volume of cheque-based payments to less than 0.25% of the total retail payments⁴⁹. It will also target increasing the number of registered users for mobile-based transactions at a CAGR (compounded annual growth rate) of 50% by 2025⁵⁰.

Figure 18: Surge in digital payments

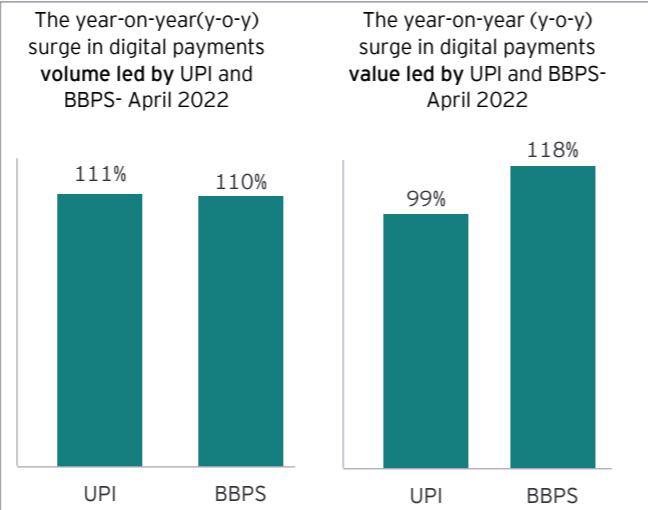
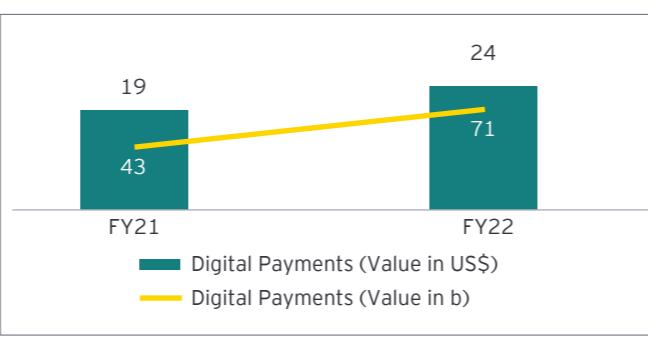


Figure 19: Digital payments FY'21 and FY'22 (volume in billion) (value in \$ trillion)⁵²



Source: RBI

Figure 20: Transaction volume growth of various payment systems

Payment system	Transaction Volume Growth (Y-o-Y, per cent)				Transaction Value Growth (Y-o-Y, per cent)			
	Mar-2021	Mar-2022	Apr-2021	Apr-2022	Mar-2021	Mar-2022	Apr-2021	Apr-2022
RTGS	70.1	13.7	178.8	28.9	7.8	11.4	36.6	26.1
NEFT	32.7	23.9	62.7	30.6	33.4	14.6	56.6	22.1
UPI	119.1	97.9	164.2	111.4	144.5	90.3	226.6	99.2
IMPS	67.5	35.5	163.7	46.0	62.0	41.3	147.3	48.4
NACH	-22.0	9.0	-43.0	19.0	16.0	-8.0	24.0	14.3
NETC	128.6	39.9	1500.8	61.5	117.2	32.7	1021.6	51.9
BBPS	122.4	102.4	175.2	110.9	165.9	120.7	279.4	117.7

Source: RBI 2022, 2021

UPI in numbers

UPI, which has emerged as one of the most popular payment methods, supports Peer-to-peer (P2P) and Merchant payment (P2M) services, which can be used over the smartphone (app-based), feature-based, and at the merchant location (app-based). P2P formed 78% of the total transaction value in July 2022 with \$104,595 million⁵³

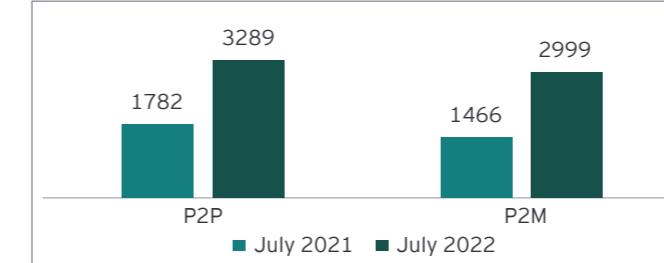
Figure 21: UPI P2P and P2M transactions

UPI P2P and P2M Transactions (July 2021 vis-à-vis July 2022)						
Month	Total		P2P		P2M	
	July 2021	Volume (million)	Value (\$ million)	Volume (million)	Value (\$ million)	Volume (million)
July 2021	3,247.82		76,194	1,781.79	62,041	1,466.03
July 2022		Volume (million)	Value (\$ million)	Volume (million)	Value (\$ million)	Volume (million)
	6,288.40		1,33,592	3,289.15	1,04,595	2,999.25

Source: NPCI Statistics INR to \$ conversion rate considered as of 08 August 2022

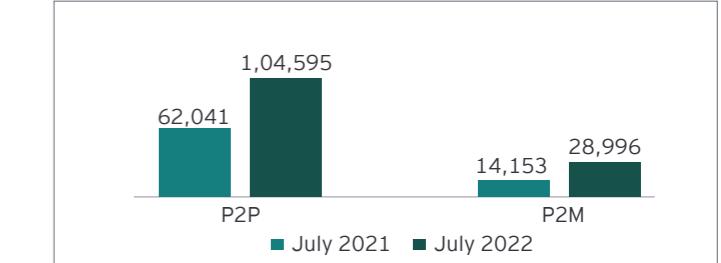
There has been a substantial growth in UPI Peer to Peer Payments (P2P) and Peer to Merchant Payments (P2M) in July 2022, recording a 94% and 75% value growth since the previous year (July 2021). Most of the P2P transactions had a lot size greater than \$26 (INR 2,000)⁵⁴.

Figure 22: Volume of P2P and P2M transactions (million)



Source: NPCI, EY Analysis

Figure 23: Value of P2P and P2M transactions (\$ million)



⁵²<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>

⁵³<https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PSSBOOKLET93D3AEFDEAF14044BC1BB36662C41A8C.PDF>

⁵⁴<https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics>

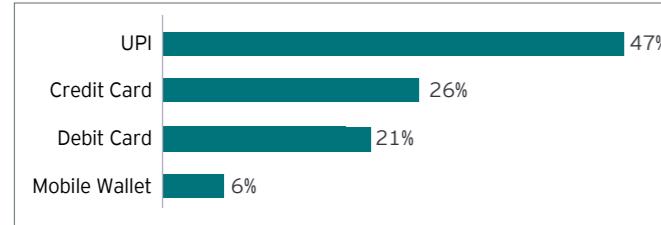
This growth was due to a massive surge in the number of users and banks linked with UPI. Zero Merchant Discount Rate (MDR) has also been a major driving factor for UPI. Government reimbursements and democratization of payments have allowed Payment Service Providers (PSPs) like PhonePe and Google Pay to acquire customers and merchants directly.

Moreover, UPI's impact gets multiplied because it can be plugged into any consumer tech platform and make payment an added feature for a better user experience. On the other hand, prominent FinTech companies, which started as payment players, are now diversifying revenue streams beyond payments. Additionally, UPI is mostly used for making low-value payments; hence, the number of transactions is high in India.

UPI continues to dominate the payments:

~47% of all payments made by customers in FY22 are estimated to be made through UPI, and only 6% through mobile wallets⁵⁵.

Figure 24: UPI transactions almost equal debit and credit card transactions (% of total digital transactions)



Source: CLSA

Headwinds

With the massive increase in UPI payments (110% y-o-y growth in April 2022), there is also an increase in fraud, accounting for most of the cyber fraud incidents in India. Out of the total 61,000 complaints of financial frauds in India involving digital payments in 2021, >50% (33,712⁵⁶) were related to UPI.

Around 65 to 75%⁵⁷ of UPI frauds occur during peak business hours between 7 a.m. and 7 p.m. The average ticket size of such fraudulent transactions is typically low (~50% of frauds being less than \$125, while only one-to-two percent of fraudulent transactions are \$125 million and above).⁵⁸

There are issues like lower transaction success rates (due to switching failure issues at NPCI and banks' end). For example, on 24 April 2022, hundreds of users across the country could not complete their financial transactions on Sunday after the UPI faced an outage for over 2 hours. The NPCI said the services were affected due to a technical glitch. It affected all banking users and payment platforms, including Google Pay, PhonePe, and Paytm.

⁵⁵<https://timesofindia.indiatimes.com/business/industry/explained-how-india-is-outpacing-the-world-in-digital-payments/articleshow/88580555.cms>

⁵⁶<https://www.hindustantimes.com/india-news/govt-received-over-61k-complaints-of-digital-payment-fraud-in-1-month-101655146626243.html>

⁵⁷<https://www.thehindubusinessline.com/money-and-banking/fraud-incidents-rising-with-surge-in-upi-transactions/article65413630.ece>

⁵⁸<https://www.thehindubusinessline.com/money-and-banking/fraud-incidents-rising-with-surge-in-upi-transactions/article65413630.ece>

⁵⁹<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>

⁶⁰<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/RBIBULLETINMAY2022DB499E66A95E413584D369C7D3658731.PDF>

⁶¹https://www.rbi.org.in/scripts/FS_PressRelease.aspx?prid=54057&fn=9

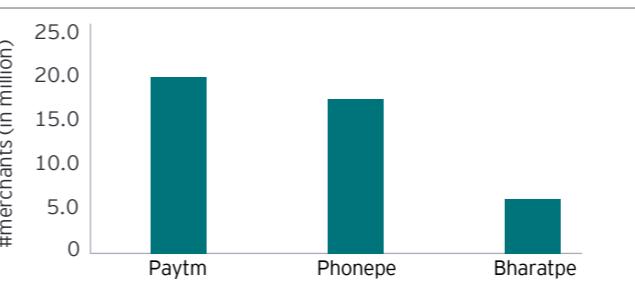
Few other misuses of UPI fraudulent activities include:

- ▶ **Social engineering:** Cybercriminals use a variety of tactics to trick consumers, most often claiming there is a cashback offer. The cybercriminal then tells victims that they have processed the cashback and can accept it through the UPI APP.
- ▶ **Phishing UPI fraud:** Unsanctioned payment links that appear very similar to the original URL of the merchant are sent to the victim
- ▶ **UPI fraud via unauthorized access due to screen mirroring apps:** The screen mirroring apps give the impersonators complete access to the victim's phone, and they can carry out multiple unapproved financial transactions
- ▶ **OTP, PIN UPI fraud:** fraud via misleading UPI handles, and initiating a collect request are some of the other fraudulent methods

Increased number of acceptance units (Channels)

The payments acceptance infrastructure (QR, mobile-based mPOS, and SoftPOS) is on a steady growth path in the country. FinTech players, such as Paytm, PhonePe, Google Pay, and BharatPe, have expanded the merchant acceptance market in the country by hitting the right chords in marketing campaigns and improving literacy in smaller towns through agents.

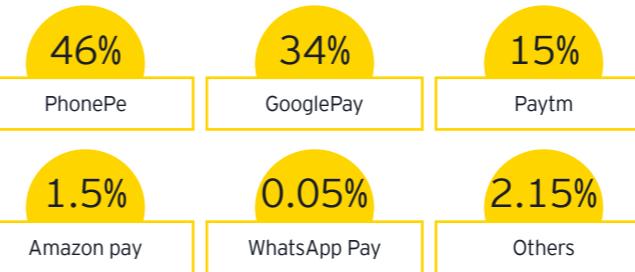
Figure 25: Key payment players by number of merchants - FY21⁶²



Source: Company websites, media reports

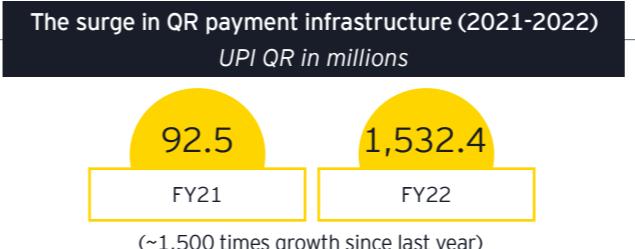
CLSA expects that in FY26, around 44% of payments will be accepted through payment gateways and aggregators, followed by 34% through QR codes and 22% through point-of-sale methods. As per the FIS, estimated point-of-sale (PoS) will witness a growth of 7% CAGR from 2021 to 2025 to \$1 trillion.

Figure 26: PhonePe currently dominates the UPI app market space: (% market share of transaction volume in 2022)⁶³



Source: NPCI

Figure 27: Quick QR code facts:



Source: RBI⁶⁴

UPI QR code payments have been introduced across various places, including railways. E.g., Automatic Ticket Vending Machines (ATVM) have been installed in several stations of Southern Railway for booking journey tickets, platform tickets, and renewal of season tickets for railway smart card, BHIM UPI QR code (Pay by Paytm), BHIM UPI QR Code (Pay by Freecharge)

NPCI International Payments (NIPL) has partnered with the Liquid group, a cross-border digital payments provider, to enable QR-based UPI payments acceptance in 10 countries across North and Southeast Asia. There is increased scope for partnerships with other countries like Singapore, the UAE, Nepal, Malaysia, Thailand, Cambodia, Hong Kong, Taiwan, Japan, Vietnam, the Philippines, South Korea, and Bhutan to enable low-value transactions and cross-border remittances through UPI, which will contribute to the growth. The collaboration between NIPL and Liquid Group will enable BHIM App users to make UPI QR-based payments to over two million merchants progressively across North and Southeast Asia from early 2022⁶⁵. The RBI also recommended card-less cash withdrawals from ATMs using UPI-based QR codes in its maiden monetary policy for the fiscal year 2022-23.

4 Demand from tech-savvy users

SoftPoS and mPoS

Growth in QR codes and UPI numbers have augmented the POS digital payments penetration that traditionally stumbled in Tier 2 cities – smaller tier 4 towns. Also, with the high penetration of smartphones, it is easier to push mPOS options to merchants who feel that POS is a costly one-time investment.

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

Contactless payments

- SBI partnered with the NPCI to launch 'RuPay SoftPoS' for Indian Merchants
- Axis bank launched wearables contactless payment devices under the brand Wear 'N' Pay
- Xiaomi launched NFC-enabled Mi Pay
- Paytm launched a Tap and Pay payment option

NFC: Industry players installing NFC-enabled contactless payment systems

Business-to-business (B2B) and Small and Mid-Sized Enterprise (SME) payment landscape

Several Indian banks are now joining forces with FinTech companies to upgrade their existing systems and enable smoother operations to deliver a better experience of B2B payments in India. FinTech players like EnKash offer all-in-one platforms for all kinds of commercial spending and needs for B2B payments by enabling card payments where cards are not accepted.

There has also been increased adoption of corporate and commercial cards for statutory payments like GST, and procurement, where businesses understand the benefits of adopting card-based payments. It is a major opportunity for the India FinTech payment players to penetrate deeper into the business-to-business (B2B).

For example, Indian players like Visa are taking a big bet on business-to-business (B2B) payments bolstering the corporate card-based solutions for commercial statutory payment use-cases, like payments to suppliers, reconciliation, and GST-based payments

A few ways how FinTech companies can revolutionize the B2B payment landscape in India are:

- Traceable transaction: access real-time data and trace the payment status
- Saves processing costs: a digital payment platform can help eliminate soft costs and paper check processing fees, leading to cost savings
- Blockchain-based payments allow real-time verification of transactions
- Commercial and Virtual cards: the automated platforms can help in timesaving with digital onboarding of clients and suppliers, salary and reimbursement deduction, tax filings and rebates, and much more
- Digitize and automate accounts payables and receivables
- FinTech companies can provide customized feature-rich platforms to craft a tailor-made solution for business' pain-points

⁶⁶https://www.business-standard.com/content/press-releases-ani/indipaisa-partners-with-nsdl-payments-bank-to-launch-a-new-FinTech-platform-targeting-india-s-flourishing-63-million-sme-sector-121122700895_1.html

⁶⁷<https://theprint.in/ani-press-releases/tide-committed-to-serving-63-million-and-growing-indian-sme-sector-to-unleash-their-true-potential/717658/>

⁶⁸https://www.business-standard.com/content/press-releases-ani/multilink-announces-tie-up-with-nsdl-payments-bank-to-build-4-000-business-correspondent-agent-network-in-india-121072000933_1.html#:~:text=assist%40bsmail.in,Multilink%20announces%20tie%2Dup%20with%20NSDL%20payments%20bank%20to%20build%204,000%20business%20correspondent%20agent%20network%20in%20India&text=New%20Delhi%20%5BIndia%5D%2C%20July,a%20strategic%20partnership%20with%20Multilink.

Increased digitalization presents an opportunity to solve two key problems for MSMEs: delayed payments and costly, inaccessible credit. Many Indian FinTech companies are planning to introduce multiple financial products and services customized to match the specific needs of Indian SME owners and operators. For example, Indipaisa has become a part of the Government of India and Reserve Bank of India, launching innovative FinTech solutions targeting India's 63 million SME sector. Few other FinTech companies supporting SMEs include⁶⁶:

- Tide aims to serve 63 million⁶⁷ and growing Indian SME sector to unleash their true potential
- EasyCollect API by Easebuzz – One-stop shop simplifies SME's online payments
- Multilink announced tie-ups with NSDL payments bank to build 4,000+⁶⁸ business correspondent agent networks in India

Open banking and APIs are boosting the digital payments growth in India

The government and private companies in India have teamed up to create a hybrid open banking system in India, unlike in other countries. RBI has granted regulatory authority to a group of companies known as account aggregators (AAs). These companies get access to customer data and act as middlemen. On the other hand, partnering with a consumer-facing platform can help bring a huge user base, and open banking can be an attractive opportunity also because open banking slashes customer acquisition costs if it scales.

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

The open banking scenario in India has paved the path for UPI, the growth of neobanks building a futuristic way of allowing users to perform a broad range of banking activities online, from making payments to tracking money to managing their money. Millions of Indians use these services every day to make payments, pay bills, and even get insurance. Indian FinTech is booming – thanks to UPI. The growth of neobanks in recent years has attracted more attention and helped continue the growth of the FinTech scene in India. Multiple payments FinTech companies have turned into neobanks like Razorpay, Niyopay, Myshubhlife, Chqbook, etc.

Other players include BigTechs (Google, Flipkart, Amazon, and WhatsApp started their journey in banking in India through Wallet and UPI); beyond the BigTechs, there are multiple startups in EdTech, AgriTech, eCommerce, and mobility aggressively focusing on embedded finance.

However, open banking can be good for users, but very difficult for banks that cannot scale. New, growing businesses have relied on cashback and rebates to reach that scale, and industry leaders, such as Paytm, are only now switching to profitable, organic modes of growth.

5 Payment players can offer solutions beyond payments to unlock new revenue streams for profitability

Payment systems, for example, UPI, are not yet profitable as digital payment services are offered free of charge, and while there is a merchant discount rate on debit/credit cards and PoS/gateways, companies also charge a fee for the service. Hence, a few steps are taken by the payment players to make the PayTech business profitable:

- **Diversification:** UPI-based issuers, BBPS, BNPL, and super apps are now diversifying into being full financial service platforms, including lending, distribution, and non-financial related services, as they intend to capitalize on the large customer/merchant base they have built, e.g., Phone Pay, Mobiwik, Google Pay, Bharat Pe, Pine Labs, Razorpay, and CRED. Financial services were more successful in this space because they already had a platform that solved the core needs of a large customer base.

Expansion of BBPS

Expansion of BBPS includes new biller categories for recurring bills (except prepaid) and will provide a lever by bringing additional transaction volumes from segments like insurance, credit cards, local taxes, educational institutions, housing societies, and clubs. BBPS can be majorly used to make utility payments. City gas distribution and water are two biller categories that will continue to get onboarded onto BBPS as new geographical areas are brought under gas distribution.

- **Insurance:** Health and life insurance premiums can be paid at intervals through BBPS
- **FASTag:** With the facility to recharge FASTag through BBPS, customers will have the convenience of making payments through multiple integrated channels
- **BBPS can be used to receive micro-SIPs** through an existing business correspondent network

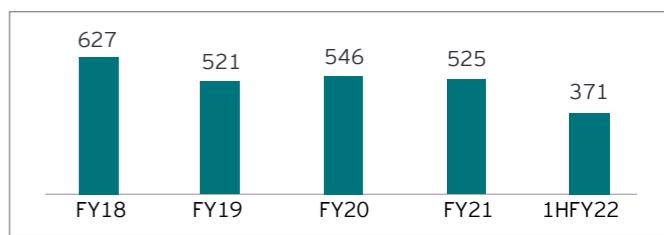
NPCI has analyzed the upcoming potential categories that may be considered in recurring payments like e-challan, ticketing, wallet reloading, semi-closed PPI reloading, and rent payments. Banks and mobile applications are integrating their customer-facing systems to support BBPS transactions. BBPS income lines for participants include customer convenience fees, float income, and interchange fees paid.

Most of the payment players are in a phase of diversification, from payment providers to offer varied services like e-commerce, wealth management, and even insurance through the super app. The vision to become a 'One-stop App' for customers will ensure continuous value addition and innovation.

BNPL

Deferred payment options driving high volumes: FinTech and BigTech companies are increasingly offering credit/BNPL payment options at the point of sale in collaboration with NBFCs and banks. The adoption of BNPL has also expanded among people with access to credit in metro and urban locations as it allows them to make low-value purchases with the option to pay later, either as bullet payments or in installments. Two types of BNPL products are offered: a deferred model and a regular EMI model. BNPL players include Klarna, LazyPay, Capital Float, After Pay, Zest, and Affirm. As per industry estimates by Redseer, only 10 to 15 million people in India have availed of BNPL credit from digital-only players in FY21. In FY21, disbursements by such players amounted to \$3.5 billion, representing 5% of total online sales in India. The BNPL market is estimated to grow to 10% of total online sales over the next five years.

Figure 28: Fundraising by BNPL sector (\$ million) FY18 - 22 YTD⁶⁹



Source: CLSA

Revenue model and consumer protection: BNPL has a merchant-focused revenue model. Interchange and late payment fees are the revenue lines for BNPL service providers. FinTech and BigTech companies currently dominate the BNPL market, and large banks are yet to operationalize full-fledged BNPL into their systems. This also holds for global players. There are few traditional banks, however, which are jumping into the BNPL bandwagon. This includes HDFC Bank's FlexiPay and ICICI's PayLater. Traditional banks are currently worried that such easy access to credit might lead their borrowers into a debt trap, which might impact the Indian credit culture.

As per RBI's new guideline of limiting non-bank PPI from being loaded with credit lines, few FinTech companies (like PayU, LazyPay, Jupiter, EarlySalary, and KreditBee) have discontinued their BNPL products. Owing to this, market demand will be created from the existing BNPL customers that can be then tapped by the licensed players and banks by building in-house BNPL solutions.

⁶⁹<https://www.statista.com/statistics/1299336/india-funds-raised-by-bnpl-sector/>

Is the super app still an option?

With increasing levels of digitization, greater affordability of smartphones, and a COVID-19-induced preference for digital services, super apps are finding greater acceptance across markets. FinTech companies' FS re-bundling phenomenon is driven by investors' push for profitability or lucrative exits, access to supporting infrastructure technologies, and the opportunity to monetize the data and user base by cross-selling other financial products and services. For example, Paytm started as a payment player and later diversified into multiple other FS and non-FS areas. Below is the list of such players depicted in the following graphic:

Figure 29: Services provided by FinTech players

FinTech players	Core service	Expanding in new segments					
Paytm	Payments/Wallets	E-commerce	Investing (MF/Gold)	Equity broking and Insurance	VAS, Off-line merchant tie-ups	Gaming, travel, entertainment	Office merchant lending
PhonePe				Insurance	Off-line merchant tie-ups	On-line merchant tie-ups	Payment gateway
MobiKwik		Consumer lending	Investing (MF/Gold)	Merchant lending	Platform for business bank (neobank)	Merchant lending	
Google Pay							
Pine Labs		VAS for merchants	Rewards and loyalty	Consumer financing (BNPL)			
MSwipe			Pay-by-link and micro websites	Consumer financing (EMI)	Merchant lending	Merchant lending	
Razorpay			Pay-by-link and ePOS	Digital platform for business (neobank)			

Source: EY Analysis

- With P2M overtaking P2P transaction numbers in the future, this will be supported by the merchant acquiring strategy of most UPI players: Income line for participants include P2M MDR (MDR charged to a merchant for payment processing services), P2P interchange (fee collected by issuing institutions from acquiring banks), registration fee charged by banks for autopay registration
- With UPI getting enabled for cross-border remittances, participants are expected to gain from the forex arbitrage



Indian payment landscape

Figure 30: Indian payment landscape

Consumer	
TPAP / Wallet	PhonePe paytm G Pay amazon pay
PrePaid Card	fampay sodexo*
Bill Payment	Biodesk CRED
QR Code payment	BharatPe
Payment aggregator	PayU Biodesk CC Avenue innoviti®
POS	Pine Labs mswipe™ Payswift Worldline
Business	
Corporate Card	happay EnKash OPEN
B2B Payment	PayMate
Invoice Payment	nüpay hylobiz®
Payment Gateway	Cashfree Razorpay CC Avenue® iSG
Card networks	VISA NPCI NATIONAL PAYMENT CORPORATION OF INDIA mastercard
API/ White-label solutions	zeta SETU M2P SAFEXPAY Safe & Express Payments
Payment Security	THIRDWATCH Clari5® CustomerXPs®

Source: Company websites, EY analysis

Challenges

It is important to address that the next phase of payment growth in the country is likely to be driven by low-ticket payments, with tier-2 to tier-4 markets witnessing a surge in demand. However, major roadblocks facing the digital payments ecosystem would be cash versus the cost of digital transactions, lack of awareness of digital alternatives, demand for digital alternatives in smaller towns, and perceived risk of increased tax liabilities for merchants. Therefore, regulators, government, and payment players need a collaborative effort to overcome these hurdles. On the positive side, RBI's resolve to boost payments acceptance infra in Tier 3-Tier 6 centers (adding 1 million physical and 2 million digital payment acceptance devices every year) through PIDF Scheme is expected to add tailwinds to the digital payments growth in underserved segments.

The PCI has expressed its concern, highlighting that the digital payment ecosystem expects a loss of \$690 million (INR 55 billion) due to zero MDR. There is a huge gap to cover so that everyone in the value chain gets their credit. The digital payments industry has urged the center to either roll back the zero MDR regime for UPI or to increase the government reimbursement by an amount of \$500 million (INR 40 billion) for the Zero MDR model to remain sustainable in the near term.

As per a recent discussion paper issued by RBI, the UPI charges need to be similar to IMPS charges, as there has to be an avenue of earning for banks and service providers engaged in providing UPI-related payment services. However, as per a follow-up update by the Indian Finance Ministry, the government has no consideration to levy charges on UPI transactions. The service providers will need to recover the costs through other means, considering UPI is a digital public good.

Next steps

Recently announced, 'Payments Vision 2025' will increase financial inclusion within the country and boost the FinTech and BigTech players. Additionally, with UPI and RuPay's internationalization, India will be an undisputed global leader in payments. Linking credit cards to UPI is another game-changer, as would the globalization of India's Central Bank Digital Currencies (CBDCs). This credit card linking will benefit small merchants and UPI acquirers, such as PhonePe, Paytm, BharatPe, etc. The central bank has not announced any charges for using credit cards for UPI payments; however, banks or lenders could charge a nominal fee for linking credit cards to UPI platforms.

Consumers are increasingly expecting an invisible payment experience, and payment players must adopt technology to provide it. To meet the expectations, payment service providers are leveraging zero-touch payments, the Internet of things (IoT), Distributed Ledger Technology (DLT), and AI/ML to analyze massive transaction data that provides deep insights into customer preferences. In its vision 2025, RBI also intends to create a new system for processing payments via the internet and mobile banking services. Currently, the companies route these services through payment gateways and other aggregators.

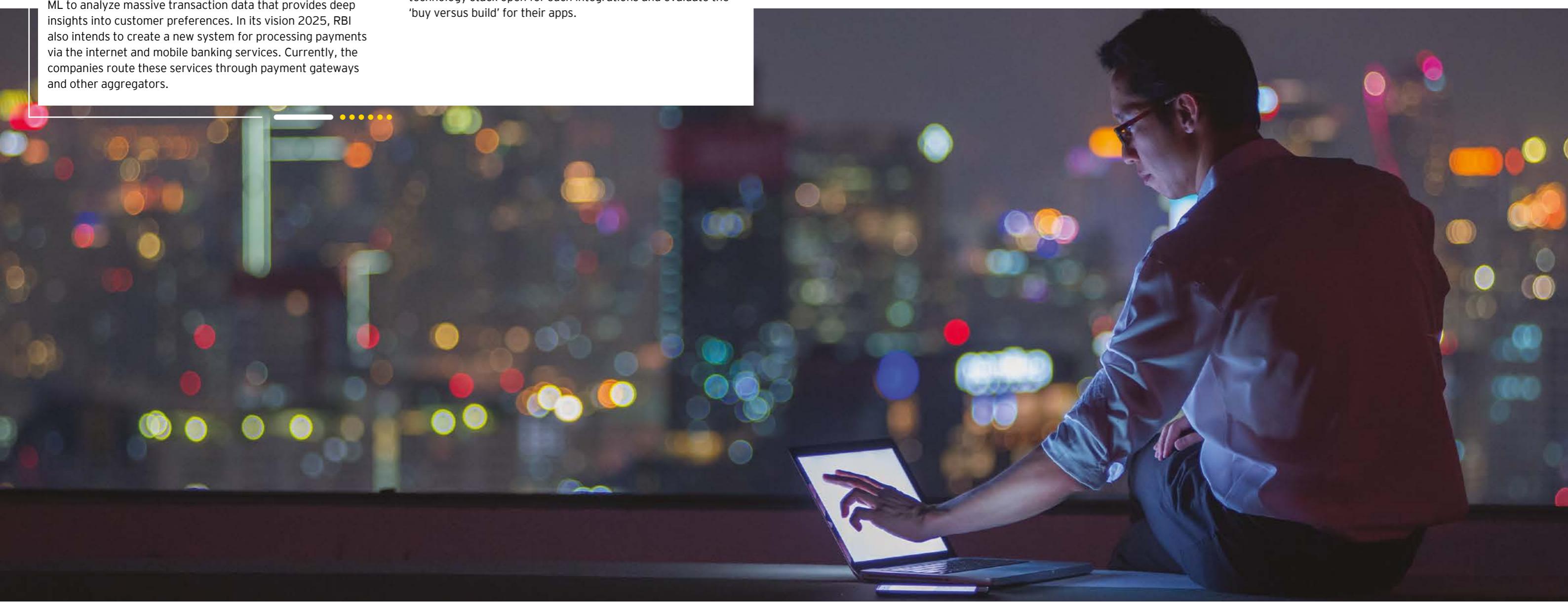
Payment apps use one or a combination of new technologies such as facial recognition (e.g., Google pay), fingerprint biometrics (e.g., Paytm, PhonePe), and voice/sound (e.g., ToneTag) to authenticate users, and transactions are becoming the industry norms. These technologies are enabling secure yet faster and convenient payment systems. While RBI's guidelines around security systems ensure companies meet or exceed the common standards, the new age tech adoption ensures a competitive edge in the market. In the wake of increasing cyber risks, the government will probably provide a regulatory push for multifactor authentication, consumer data protection, infrastructure resilience, scalability of systems, and dispute resolution mechanisms in the next few years. It is important to highlight that while agile FinTech players find it easy to partner with third-party tech vendors to integrate new technology, payment apps launched by banks would need to keep their technology stack open for such integrations and evaluate the 'buy versus build' for their apps.

Simplification of the process for payments with less ticket size: The average ticket size for UPI payments is \$2.6 (INR 200)⁷⁰ per transaction for ~50% of the transactions in FY21. The RBI has hence proposed to offer a simpler process flow by enabling small value transactions through a 'One device' wallet in UPI app, which will conserve banks' system resources without any change in the transaction experience for the user

The growth in digital payments has strong implications for the banking sector. It is important to note that banks derive ~25%⁷¹ of the total fee income from cards and payments-related businesses. With the rapid growth of MDR on standard UPI P2M transactions, banks would slowly lose control of this lucrative non-interest income source.

PayTechs are looking to diversify and extend services beyond digital payments to achieve the long-term aim of profitability. Out of the densely populated market of PayTechs, the larger PayTechs are looking to utilize their wide customer base. They are applying for licenses to distribute mutual funds, become account aggregators, and offer insurance to gain new lines of revenue.

As seen in other Asian markets, India too is likely to end up with a very small number of players dominating the space. However, some industries will take precedence when it comes to the initial adoption and penetration of these apps. "Embedded finance"—one of the foremost themes of India's FinTech story going forward—work successfully with further potential to unlock vast growth opportunities for specific target segments, such as Gen Z, millennials, or small business niches⁷².



⁷⁰<https://timesofindia.indiatimes.com/business/industry-business/explained-how-india-is-outpacing-the-world-in-digital-payments/articleshow/88580555.cms>

⁷¹<https://www.hdfcsec.com/hsl/docs//FinTech%20Playbook%20-%20P2M%20Payments%20-%20Surging%20pool,%20dwindling%20yields%20-%20HSIE-202103220839213012016.pdf>

⁷²<https://www.businessstoday.in/magazine/30th-anniversary-special/story/the-era-of-super-apps-321705-2022-02-07>

Digital adoption interview Q&A

Sandeep Ghosh, Group Country Manager- India and South Asia Regional Sales, Visa



Sandeep Ghosh is Group Country Manager for Visa in India & South Asia (INSA). He is responsible for the organization's growth strategy and market leadership across South Asian markets, including India, Sri Lanka, Bangladesh, Nepal, Maldives, and Bhutan.

In his role, Sandeep focuses on Visa's growth and expansion based on innovative strategies to open business avenues, help build and scale a trusted payments ecosystem and drive financial inclusion by developing a less-cash society across each of the markets.

Sandeep brings diverse and rich experience from the banking and finance ecosystem, having worked across multiple global markets. His roles have spanned business development, brand marketing, strategy, and general management in FMCG, banking, insurance, and consulting.

Before joining Visa in March 2022, Sandeep led the Financial Services Consulting practice at EY for India. Previously, he also served as the Managing Director at Bharti AXA Life Insurance and Country Manager AXA India, where he helped build a strong franchise for the brand.

Sandeep has also worked in senior management roles, leading Commercial Banking at ANZ and RBS in APAC. Sandeep spent nearly a decade at Citibank, heading its commercial banking operations in India, before which he was the Category Head—Marketing, South Asia, with PepsiCo.

Sandeep holds a bachelor's degree in Commerce, Accountancy and Financial Management from Sydenham College, University of Mumbai, and an MBA from the Indian Institute of Management, Ahmedabad. Sandeep is based in Mumbai with his wife and two daughters. In his leisure time, he likes to play table tennis, watch films, read up on world affairs, and travel.

Q What are your thoughts on the upcoming innovations in the payments industry? How will the industry advance as a result of these innovations?

A There is tremendous impetus to growing digital payments in India due to the efficiency it brings, the 'leakages' it plugs, and the business case is extremely compelling. In recent years, real time payments have led the race to digitize payments at scale across India. Going by volume of transactions, India has emerged as the global leader in real-time payments. Between RTGS, NEFT, IMPS and UPI, we have been able to introduce digital payments to the masses for consumer and commercial payments.

The proliferation of QR codes with merchants, thanks to the efforts of the Big Tech companies [PhonePe, Google Pay and Paytm], combined with the efficiency of our RTP rails, is driving adoption rates. While UPI has some great strengths, including pricing, when it comes down to security, chargebacks, grievance redressal and dispute resolution, "cards" offer a distinct advantage to its users. Thus, the growth of RTP notwithstanding, cards have also grown in India with approx. 78 Million credit cards and over 900 Million debit cards in the market.

We believe that going forward, digital payment credentials will become the basis of money movement in the country. The rate and pace of cash displacement is remarkable and quite unprecedented. Case in point being the growth of e-commerce with people transacting frequently on Swiggy, Zomato, Amazon, Flipkart, etc. Thus, over 55% of card transactions today are happening online and without a physical card and face-to-face interaction. Innovation will happen around all these different form factors, giving consumers multiple options of where and how to pay, and to get paid.

Visa's business is not only about giving people the choice to make instant payments but also about wrapping that in an envelope of security and resilience. We believe innovations are going to happen around payment methods, security and fraud management, payment success rates, payment performance, and around point of sale devices. The physical POS machine is getting replaced with a Soft POS and/or a QR code on the merchant side. Payments, as an industry, is thus becoming increasingly device and form factor agnostic. The payments industry is also innovating around using voice commands in their languages to initiate transactions. There are a few sectors in the world where India leads in terms of innovation and rate of digital adoption – clearly, payments is one of them.

Q How is Visa collaborating with FinTech companies and the larger ecosystem to support innovation?

A Visa partners with diverse stakeholders across the payments ecosystem and value chain, including banks, FIs, FinTech, and the Big Tech companies. The three models that we leverage to engage with FinTech companies are, 'Strategic investments' 'Acquisitions', and 'Partnerships'. Any company or organization that is part of "growing the payments ecosystem" play is something

that is of interest to the Visa as a potential partner. Lately, we have been focusing on open banking, account aggregator, credit expansion and the payment technology ecosystem. In particular, we are interested in businesses that are building back-end tech stacks and/or front-end engines to support acquisition, cross sell, underwriting both on the issuing and acquiring side.

Globally, we have recently acquired Tink to further strengthen our capabilities in the open banking space. Card processing-as-a-service is another key focus area where we have partnered with players like Vision Plus and M2P to offer the option to build the stack in-house or outsource the stack for our customers. In India, we also work with leading Fintechs like Slice, Uni, OneCard, LazyPay and practically all PayTechs. We have always been customer and solution centric in our approach to fintech partnerships and work with multiple players in the segment. We also have an Asia Pacific-wide accelerator program running out of Singapore, and an Indian market leader, Perfios, is part of the program. We see a terrific opportunity at multiple levels in the Fintech space, and we are actively collaborating with the ecosystem both globally, at an APAC level and in India.

Q What is your take on CBDCs, and CoFT?

A Visa is in discussions with multiple regulators in multiple jurisdictions to see how the thinking around CBDC is getting formed and shaped. We continue to explore use cases and value propositions to understand exactly the role that a CBDC will play, which the existing payments infrastructure is either inadequate or needs improvement.

In our view, Cross-border payments and offline payments are the potential areas where CBDC can be a plus to what already exists in India today. While Real-time cross-border payments are one of the most promising use cases, it would need broader acceptance by other countries for the use case to work. Relevant use cases and a support ecosystem will be critical to the acceptance and growth of CBDC.

The RBI's Card On File Tokenization (CoFT) guidelines categorizes transactions on e-commerce platforms into two based on the usage on a particular platform. High-Frequency transactions on platforms such as Zomato or Swiggy, where a user transacts multiple times in a week/month/year, or Guest Checkout (One-time purchase) for incidental commerce. Needless to say, users generally prefer their cards being tokenized for security and the convenience of a fast checkout on high-frequency usage platforms but may prefer a guest checkout on less frequent commerce websites such as travel and airline booking sites. One of the key challenges in the current CoFT implementation guidelines is to manage chargebacks and refunds during a guest checkout option, where tokenization of card is not possible at the merchant portal. The industry continues to work closely with the RBI on an interim solution and a long-term solution around guest checkout. Overall, once fully adopted and implemented, India will be one of the leading markets in the world in terms of token enabled transactions.

Q What impact would account aggregators make on the payment ecosystem?

A India has 78 to 80 million credit cards, while the equivalent number in China is over 900 million. Compared to some of its global peers, even amongst BRICS countries, India has a far lower credit card penetration. Out of the 78 odd million credit cards, the number of unique cards might be significantly less, given the propensity of many users to own multiple credit cards. With nearly 160 to 200 million people in India being credit underserved, quite clearly there is a huge gap in terms of citizens who are potentially eligible for credit versus those who own credit cards.

With account aggregators plugging the data gap, financial service providers can extend customized products and solutions suited for fit and purpose of their consumers' needs. In our view, this will usher in a new approach to the digital financial services ecosystem, allowing them to serve new to credit, or underserved customers more efficiently while strengthening their relationships with their existing customers. Thus, the expansion and adoption of digital payments now needs to lead to the democratization of credit and the account aggregators will play the catalyst role in that journey.

Neobank: Partnerships driven by hyper-personalized products

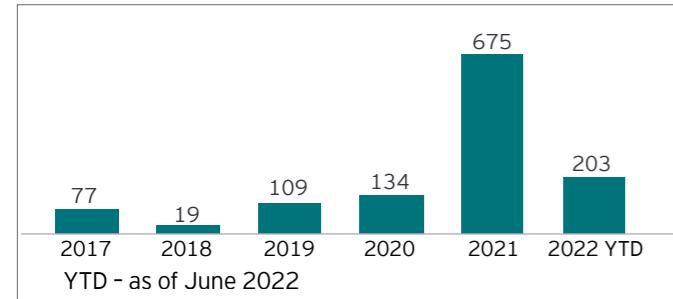
Overview

Over the last few years, the number of neobanking platforms and global investments in the neobanking segment has risen consistently. Indian FinTech space has followed suit, and the number of neobanking startups in the country is growing by months and attracting global investors to this market.

The continuous funding received since 2017 reflects the increased interest in this sector. The funding activity, however, was buoyed by the pandemic. Investors realized the potential that neobanks bring to the larger financial services industry.

Current state of neobank adoption in India

Figure 31: India's neobanking funding witnessed a ~70% CAGR from 2017 to 2021 and a ~5x growth since 2020 (\$ million)



Source: Tracxn, EY analysis

Major driving forces behind neobank growth:

1 Partnership model

- A partnership model-approach currently dominates India's neo-banking landscape, where the neobanks do not have the license and must partner with a financial institution to roll out their products and services
- Neobanks are partnering with licensed banks providing co-branded cards, payment services, and zero-balance accounts. For example, InstantPay with ICICI provides speed to market, and Razorpay partnered with RBL bank provides cheaper customer acquisition

1 Partnership model

Incumbent banks are increasingly looking for strategic partnerships with neobanks adding to the growth story of India's neobanking space.

2 Need for customer centricity

- Digital banking services from traditional banks have been product-oriented
- Neo-banks provide superior UI/UX developed apps, which leads to more client engagement
- Nearly 18% (~81.4 million) Jan Dhan accounts are dormant as of 27 July 2022

3 Technology sophistication

- Disruptive technology infrastructure, including AI, Biometrics, and cloud making banking solutions easy to develop from the scratch
- Banking as a Service acting as a new model for revenue growth

4 Embedded banking

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

5 Entry of global players in the Indian neobanking space

- There has been a surge in digital financial services in India after the pandemic has attracted global neobanking players example, Tide and Revolut
- Global neo-banks have entered the Indian market, making it more attractive, but there are substantial hurdles ahead

India's current focus area

Model B: Partnership Model

- Operates as a partnership between customer-facing non-banks (FinTech companies) and licensed banks.
- Tech-enabled business model and provide services with no or minimal physical touch
- Only permitted in jurisdictions like the UK, Singapore, Hong Kong, etc.
e.g., Starling Bank (UK), Kakao (South Korea), WeBank (China)

Source: Media reports, company websites, EY analysis

Model A: Licensed digital banks (not in India yet)

- An existing licensed bank that offers digital-only services under a different brand name or unit
- By leveraging technological solutions, they target tech-savvy customers to deliver banking services
- This model is prevalent in the Indian market
e.g., YONO by State Bank of India, Digibank by DBS, 811 by Kotak Mahindra Bank



**Banks are looking for branch-light, distribution-heavy operations:**

Banks with a regional focus, such as Kochi-headquartered Federal Bank or Thrissur-headquartered South Indian Bank, can now have customers across the country without investing in a large branch network.

Highlighted the partnerships made by a few selected neobanks with target segments, listing down the advantages

Neobank	Key partners	Key products/services	Key target segment	Key benefits
Razorpay X	RBL, SBM, Yes bank	Payments, Current account, Cheque book, Credit Card, Payroll management, IT and compliance, CRM	SME/MSME, Woman-focused	Enables businesses to get access to fully functional current accounts, automate payroll compliance, API-driven solutions, and cheaper customer acquisition – all in one platform
Niyo	DCB, Yes bank, Equitas Small Finance, SBM, ICICI bank	Salary and current account, FOREX card, Employee benefits scheme, travel loans, early salary, mutual funds' investments	SME, Millennial and GenZ	Helps businesses to have a digital salary account for employees. It provides a next-gen FOREX card loaded in Indian rupees and can be used anywhere in the world without any markup. Also enables bank account opening for Millennials in 100 seconds ⁷³
Instantpay	ICICI bank, IndusInd bank, Axis bank, Yes, NPCI, RuPay	Savings/current account, prepaid cards, bill payments, travel, insurance, loans and investments, expenses, and cash management solution	SME, Rural, and Millennial	Provides API-driven banking software. It was the first in India to launch a cashback contactless card in partnership with NPCI and Yes bank powered by RuPay. On a B2B level, corporates can issue expense cards to their employees to effectively manage their travel, entertainment, and day-to-day business expenses, while saving money with the cashback program. InstantPay offers an end-to-end expense management solution to such businesses ⁷⁴ .
Jupiter	Federal bank, NPCI, Visa	Savings Account, Debit Card, Pay Later, Insights/Analytics	SME and Millennial	Allows customers to set up their savings bank account with in-built money management features , such as real-time spending insights, tracking liquid assets across bank accounts, personalized savings goals, and managing transactions
Fi	Federal bank, Visa, NPCI	Savings Account	Millennial	Provides a feature-rich financial platform for money storage, payments, investments, and lending. Also provides salaried Millennials instant savings account equipped with a debit card, in three minutes

Sources: Media reports, company websites, EY analysis

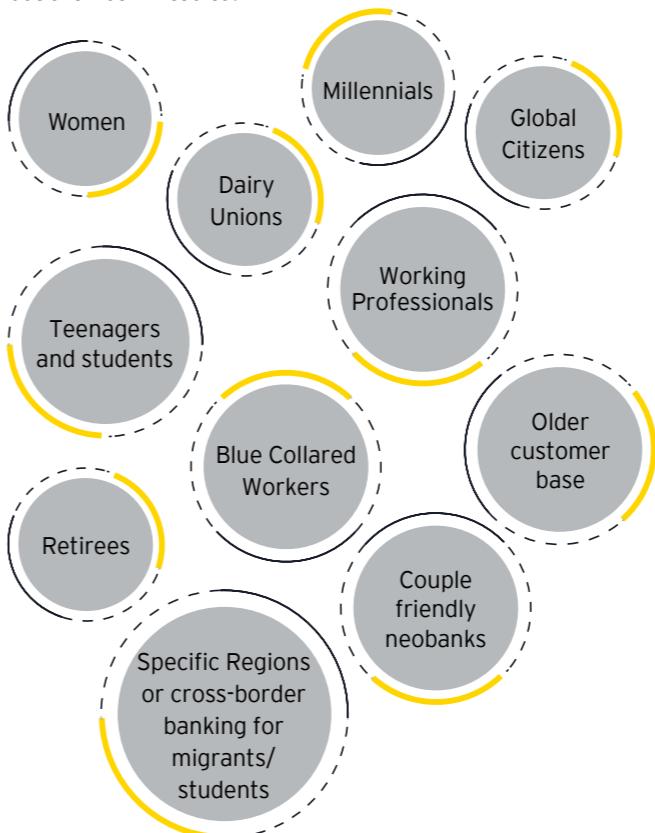
2 Need for customer centricity

Neobanks are nimbler in their evolution

The neobanking journey of India has recently moved from a “youth and mass-focused” to a more differentiated segment. Few boutique neobanks are increasingly emerging like Freo (The country's first credit-led neobanking app by MoneyTap), Mewt (SME-focused), Mahila Money (women-focused), Mool (wealth management, savings, investments, and innovative banking), Dinero AI (lifestyle-based app), Coupl (couple friendly neobank), and many more.

Retail-focused neobanks are finding headroom in the niche

Newer and upcoming neobanks are coming up with a focused approach towards target customer groups to offer unique and differentiated products and services. These themes include but are not limited to:



⁷³<https://bestmediainfo.com/2021/06/FinTech-brand-niyo-to-spend-up-to-rs-60-crore-on-marketing-in-next-five-months>

⁷⁴<https://thepaypers.com/cards/instantpay-npci-yes-bank-launch-cashback-card-in-india-1249522>

⁷⁵<https://www.thehindubusinessline.com/money-and-banking/neobank-fi-partners-with-federal-bank-to-open-instant-savings-account/article34420812.ece>

The startups coming to target this segment also use improved technology, better customer acquisition strategies, and a variety of products to fulfill customers' needs and expectations through the **credit-led model**, **saving-led model**, and **tech and API-driven model**. There have been many differentiated startups launched lately which have scaled up quickly by focusing on a particular segment like:

Market Segmentation: Target audience		
Neobank	Focus segment	Description
Mahila Money (MM)	Women	Offers prepaid cards (digital and physical), leveraging Transcorp PPI license that authorizes Transcorp for issuance and operation of prepaid payment instruments. MM has partnered with registered banks and NBFCs to facilitate a range of personal loans for users on its platform.
Zolve	Student	Provides credit cards to Indians going to the US for higher studies or employment using the customer's current credit history and other parameters to issue cards in the US. It will also open a bank account for its users before they move to the US. Zolve is working with an Indian bank to secure a favorable deal for its customers. It earns its revenues from merchant discount rates on the cards.
Digivridhi Technologies	Farmer	A dairy-focused neobank startup providing dairy farmers access to formal banking and financial services. It is currently working with some of India's leading cooperatives, and their respective milk cooperative societies and farmers, by providing them access to payments, liabilities, and asset products through its partnership with Federal Bank.
Coupl	Couple	India will soon be home to a new neobank called Coupl, which is designed specifically for couples. Coupl's integration with banks across India will give users one view of their shared, growing wealth and a virtual assistant can provide insights into spending and saving trends while creating a personalized budget for couples.
Niyo, Finin, Digitbank, Jupiter	Millennials and Genz	<ul style="list-style-type: none"> ▶ High yield saving account ▶ Cards with no credit history ▶ Data-driven personal finance management
Walrus, Fyp, FamPay	Teenagers	<ul style="list-style-type: none"> ▶ Zero-balance or no fee-saving account ▶ Rewards and cashback programs ▶ Financial skills learning through bite-sized content ▶ FamPay is India's first neobank for teenagers providing prepaid cards. FamPay charges a one-time fee of \$3.8 (INR 299) for its regular card or \$7.5 (INR 599) for the premium card
Razorpay, Hylobiz, Nupay	SME/MSMEs	<ul style="list-style-type: none"> ▶ Current accounts with overdraft limit ▶ Working capital loans ▶ Tools to track spending, forecast cash flow
Instantpay, Bharat ATM	Rural	<ul style="list-style-type: none"> ▶ Basic banking services (money transfers, cards) ▶ Simple and affordable products

The majority of neobank's income comes from net interest income (NII). Another way to such income is by operating through co-lending models with partner banks. Neobanks also can tap into creating new revenue models in the form of subscriptions and other fee incomes if they can provide enough value in the product to the consumers (similar to how consumers pay for shopping to Amazon for Amazon Prime membership)

Differentiating by revenue streams		
Freo, Slice	Credit-led model	<ul style="list-style-type: none"> ▶ Credit and EMI cards ▶ Buy Now Pay Later (BNPL) schemes ▶ Flexible credit offering
Fi, Jupiter, NiyoX	Digital saving model	<ul style="list-style-type: none"> ▶ Payments infrastructure (IMPS/NEFT/UPI) ▶ Co-branded debit and prepaid cards ▶ Smart solutions like expense tracking
Open, Zeta	Tech and API driven	<ul style="list-style-type: none"> ▶ Embedded banking stack: Payment collection, Expense management ▶ AI and ML-powered suites like Zeta Tachyon

Source: EY analysis

3 Technology sophistication

Neobanks are tech-driven banks, born in the cloud, which deploy artificial intelligence to create personalized, customized offers based on data. They would propose a technological way of solving a problem, be it better customer service or digital mechanisms like chatbots, WhatsApp support, 24X7 upgradation, etc., leveraging Banking-as-a-Service or B-a-a-S model. BaaS is an end-to-end model that allows third parties to connect with bank systems directly via API so they can build banking offerings on top of the providers' regulated infrastructure. The fundamental advantage is that it is wholly built and managed over the cost-effective cloud. APIs enable them to integrate services like payroll accounts receivables/ accounts payable management, tax compliance, and other software-as-a-service (SaaS) based services in the business flows of their customers directly. These technologies have made an entry for these new entrants into the financial services industry very lucrative. Few tech neobank propositions are:

Neobank Jupiter currently runs on Amazon Web Service (AWS) which has translated into benefits like improvement in business process performance, cost reduction, reduced time-to-market, effective use of resources, and decrease in latency. Being on AWS has also enabled end-to-end encryption and managing the encryption keys has become quite simpler⁷⁶

ZestMoney focuses on bringing affordability to the masses and aims to build a future-ready AI-enhanced consumer lending platform that instantly approves and disburses small-ticket loans without human interference. This is possible through an architecture allowing the business to react swiftly to market changes by launching new products and adapting old ones. Recently, ZestMoney implemented Mambu's SaaS cloud banking platform as its main loan origination and loan management system. Mambu's composable architecture allowed ZestMoney to react quickly to market changes by launching new products and services and adapting old ones in weeks

Niyo is constantly adopting new technology innovations such as video KYC, AI-powered voice-enabled chatbots, AI-based card controls for risk and fraud mitigation, live currency converter, and global ATM locator through APIs to offer a more convenient user experience to customers⁷⁷

4 Embedded banking

To meet customer-specific demand, Neobanks embed financial products from banks into non-financial services/products on their platforms using APIs. They position embedded banking solutions to overcome the customer acquisition challenges and provide financial services where there is already a captive audience of customers. This enables the creation of **new revenue streams** and **improved customer service** across the ecosystem. Although embedded banking is in a nascent stage in India, there is an increased opportunity for neobanks to tap this trend in the space. It includes the retail segment (catering to the agile lifestyle and aspirations of GenZ and young adults), MSMEs (integrated services like payments and lending to up their online revenue streams like collecting payments via WhatsApp link, automatic account reconciliation, and creating reports and GST compliant invoices), and serving the growing pool of gig-entrepreneurs. Few neobanks, like Ziggi card and Open, are already providing embedded finance platforms to embed various financial services like banking, payments, lending, co-branded cards, and more⁷⁸.



⁷⁶<https://bfci.economictimes.indiatimes.com/news/FinTech/neobank-jupiter-using-cloud-tech-to-disrupt-FinTech/90355455>

⁷⁷<https://www.entrepreneur.com/article/351364>

⁷⁸<https://www.FinTechfutures.com/2021/11/sme-neobank-open-launches-new-embedded-finance-platform-zwitch/>

The neobanking players established in India or in the process of establishing can be grouped into three major categories based on their target segments:

Retail customers	MSME
<p>Providing a better and differentiated experience to customers who are already banked (boutique neobanks)</p> <ul style="list-style-type: none"> Common themes of product offerings in unreserved retail customer segments focus on financial inclusion and financial literacy. These offerings typically attract blue-collar workers or millennials and Gen-Z segments, offering them personal finance management services, digitally rich retail banking that includes unique debit and credit card offerings, and insurance services. Many of these customer segments are shopping online for big-ticket (gadgets) and small-ticket items (food, clothes, and digital subscriptions). Few neobanks (e.g., Zigii card), have launched co-branded prepaid cards catering to the lifestyle and aspirations of GenZ and young adults. 	<p>Common offerings for MSME segments include features to collect recurring payments, bookkeeping, tax, supply chain management, and credits. These MSME-focused players can use the cash flow data for alternative lending. For the higher revenue spectrum of the MSME category, these solutions target the small and medium-sized companies that are underserved in terms of credit or have poor customer experience. The pandemic year saw many small businesses and entrepreneurs shift online. Unlike the more evolved, tech-savvy company, these had more specific needs, such as regional language communication.</p> <p>These businesses are increasingly looking for integrated services like payments and lending to up their online revenue streams (like collecting payments via WhatsApp link, automatic account reconciliation, and creating reports and GST-compliant invoices). Few SME neobanks like Open would continue to grow with more niches like exporters, importers, industry-focused steel, and e-commerce merchants. These startups would also face intense competition from SME neobank initiatives of major banks like HDFC Bank, ICICI Bank, SBI, etc.</p>

Source: EY analysis

Gig-economy segments
<ul style="list-style-type: none"> A developing market like India presents a greater potential for the supply of freelancers with its expansive population. Mastercard research projects India to grow its gig gross volume by a CAGR of 16% from 2019 to 2023⁷⁹. Neobanks have the opportunity to tap the gig economy market segment and provide them with differentiated solutions. With India ranking 63rd for 'Ease of Doing Business' in 2020⁸⁰ (up by 14 positions), India has a long way to go in creating a startup-friendly environment. From current account opening to compliance with GST norms to tax filling, access to working capital needs, and vendor payment management - these are just a few of the challenges which an entrepreneur faces from day one of the start-up's journey. With traditional banking not able to serve this segment fully due to regulatory compliances, a big gap has opened for neobanks to fill with their offerings.

Source: EY analysis, illustrative only

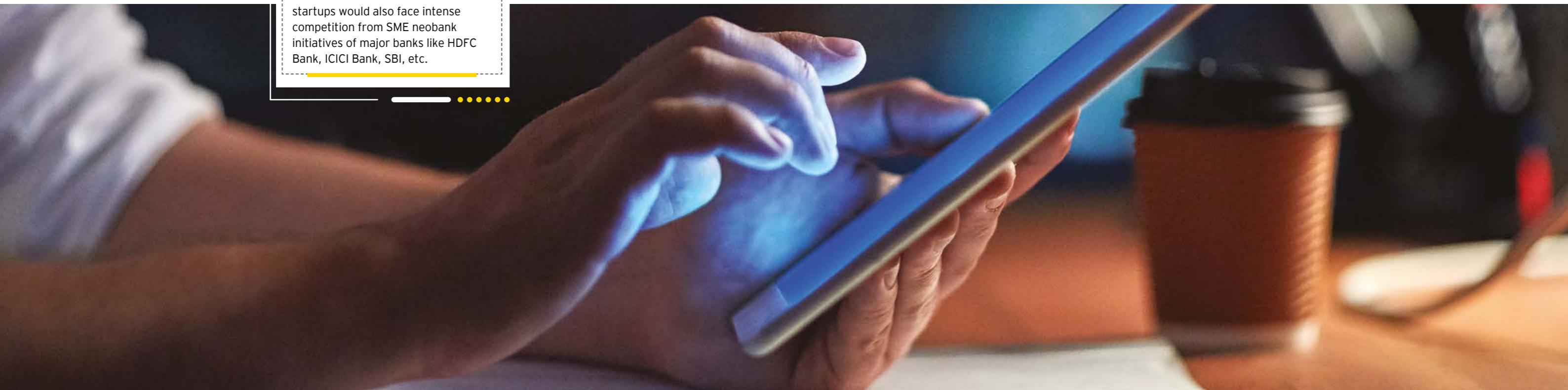
5 Entry of global players into the Indian neo-banking space

The surge in digital financial services in India after the pandemic has attracted global neo-banking players. Tide and Revolut have entered the Indian market and are forming relationships with banks and other players to start their neobanks.

Multiple other multinational players will enter India, either through the acquisition of Indian Neobanks or by greenfield implementations:

Metric/Neobank	Revolut ⁸¹	Tide ⁸²
Investment Plans	<ul style="list-style-type: none"> An initial investment of \$45 million To hire 300 employees by 2022 Build first product and engineering hub outside the UK 	<ul style="list-style-type: none"> An initial investment of \$130 million To create over 1,000 jobs
Launch Pipeline	<ul style="list-style-type: none"> Cross border and domestic remittance Trading and Investment Platform Digital bank Retail and B2B credit 	<ul style="list-style-type: none"> Administrative solutions including invoicing, digital ledger, taxation, payroll Digitize unorganized SMEs
Acquisition/Partnership		

Source: EY analysis, illustrative only



⁷⁹<https://newsroom.mastercard.com/wp-content/uploads/2019/05/Gig-Economy-White-Paper-May-2019.pdf>

⁸⁰<https://www.livemint.com/news/world/india-jumps-to-63-in-2020-eodb-survey-china-slumps-in-updated-list-5-facts-11608422562616.html>

⁸¹<https://www.techinasia.com/revolut-invest-45m-india-expansion-hire-300-employees>

⁸²<https://timesofindia.indiatimes.com/business/industry-business/uk-financial-platform-tide-commits-rs-1000-crore-investment-and-more-than-1000-jobs-in-india/articleshow/83951411.cms#:~:text=CHENNAI%20Tide%2C%20a%20UK%2D,in%20the%20next%20five%20years.>

Regulatory implications for neobanks

Indian current regulatory regime does not grant virtual banking licenses. However, through its 2015 Master Circular on "Mobile Banking Transactions in India – Operative Guidelines for Banks"⁸³, RBI has mandated that digital banking service providers have some physical presence. As a result, neobanks can provide banking-related services only through outsourcing their banking responsibilities to licensed banking institutions and non-banking financial companies.

On a positive note, RBI has taken a few initiatives toward the growth of neobanks in India:

- ▶ RBI's recent proposal regarding full-KYC PPIs has a regulatory window to enable cash withdrawal (with a limit) for full-KYC PPIs of non-bank PPI issuers. Simply put, this will unlock the transfer of money from one wallet to another wallet, and neobanks with a Full-KYC PPI license can issue cards and enable cash withdrawal, which would be a great value add to neobanks' services. RBI's other recent moves that are taken positively by the industry include:
- ▶ Increasing the maximum balance limits for payment banks up from \$1,255 to \$2,511 (INR 100,000 to INR 200,000)⁸⁴
- ▶ Allowing payment banks to convert to small finance banks (SFBs) and an on-tap SFB licensing regime that opens doors for large depositors and partnership opportunities with SME-focused FinTechs and neobanks. Industry voices also suggest RBI consider looking at fully digital SFB licenses
- ▶ Extending RTGS and NEFT money transfer facilities to non-banks
- ▶ Permitting Cash Withdrawal from Full-KYC PPIs of Non-Bank PPI Issuers
- ▶ PPI issuers must give the holders of full-KYC PPIs (KYC-compliant PPIs) interoperability through authorized card networks (for PPIs in the form of cards) and UPI (for PPIs in the form of electronic wallets). The interoperability has been enabled on March 31, 2022⁸⁵

The RBI introduced a regulatory sandbox enabling the digital players to live-test new products/services in a controlled environment. Initiatives like video KYC, the establishment of the Reserve Bank Innovation Hub, and the introduction of the account aggregator framework have also been equally remarkable in the current context.

Digi-bank rollout headwinds in India

The government has been taking initiatives for the growth of neobanks in India. India, however, has its own set of challenges that restrict it from successfully operationalizing digital banks:

- ▶ **Stringent guidelines:** The RBI guidelines⁸⁶ on outsourcing code of conduct and managing risks limit the operation of neobanks and do not allow regulated entities to outsource all core banking operations to a neobank⁸⁷. For banks interested in partnering with neobanks, it ultimately comes with a compliance burden on the banks and not the service provider (i.e., the neobank).
- ▶ **Data localization:** The RBI has been focusing on protecting customer financial data and has mandated data localization norms for all payment companies. As neobanks are indirectly regulated through their partner banks, they are also obligated to comply with data localization requirements, which may lead to delayed and inefficient processes.
- ▶ **Customer protection:** Neobanks offer customer-centric products, mostly catering to the retail segment. Neobanks need to have a proper **grievance redressal mechanism in place before offering any esoteric financial product or service in India.**

Despite the challenges, however, the 'online only' approach of neobanks comes with advantages. It can bridge the gap between rural and urban Indian banking and help to promote financial inclusion. They are also playing a significant role in developing India's fast-growing start-up sector. For example, neobanks like Mahila Money, Niyo, and Tide largely focus on specific population segments and provide lending support to that segment. This segmented approach can go a long way in changing the banking system.

The RBI had issued guidelines allowing scheduled commercial banks to open digital banking units (DBU) across 75 districts and the banks to man 3-4 specialized employees in such units by August 2022. These DBUs would operate as digital financial literacy centers⁸⁷.

Challenges

As per the Niti Aayog report published in July 2022, the neobanking model presents several challenges concerning revenue and viability. A few pressing challenges ahead are as follows:

Lack of a sustained revenue generation model can lead to huge business losses in the near term. For now, the only mode of revenue is limited to fee-based revenue wherever they act as channel partners and potentially earn only a fraction of the interchange on payments processed through cards

No proper regulation for interchange: Since interchanges are regulated indirectly in India, unlike in countries like the US, Indian neobanks cannot generate enough profit through interchanges. In many cases, the partner banks often fail to cater to the demand and needs of the digital banks due to business and technological failures, posing operational challenges for both the traditional as well as the neobanks

High cost of capital: Neobanks cannot offer low-cost deposits and are constrained to rely on expensive equity capital to fund innovation and operations, leading to increased cost of capital

Lack of regulated framework: Since there is no direct regulatory framework on neobanks currently in the country, neobanks continue to operate at the fences of banking and try to find relevance in reducing the friction between banks and customers. It means their business models have a high external dependency on partner banks and NBFCs, and onerous partnership obligations. As with the ecosystem model with low entry barriers, companies are increasingly intruding into the neo-banking space, leading to a drop in the credibility of the system

Cybercrime: An increase in the risk of **sophisticated cybersecurity incidents and cybercrimes** also poses safety and security challenges for neobanks, and that needs to be managed from the start of the operations

What is next

The shift of Neobank from "youth and mass focused" to a focused approach toward target customer groups will result in better customer acquisition strategies, and a variety of products to fulfill customers' needs and expectations through the **credit-led model, saving-led model, and tech and API-driven model.**

Early stage neobank innovation has created enough room for investment in front-end apps. It is expected that FY23 will witness a shift to strong and flexible backend platforms with integration capabilities and cloud readiness. This would mean investment in:

- ▶ Core Banking Platforms (e.g., Zeta Suite has started building a full stack banking platform)
- ▶ Open banking systems (e.g., Neobanking Startup Open launched No Code DIY Finance Platform Zwitch - a DIY (Do it Yourself) FinTech service platform that offers FinTechs with drag and drop interface to commence FinTech services)
- ▶ Digital banking systems
- ▶ Digital lending platforms
- ▶ Open insurance platforms
- ▶ Payment infrastructure (e.g., FinTech Startup Easebuzz, a payments infrastructure startup that develops API-based solutions to help businesses process digital collections and payments raised \$4 million as part of its seed round to expand Payments API Play)

On the **regulatory front**, RBI has previously issued guidelines for payment banks and small finance banks, where they have an option to either publish guidelines for the licensing of digital banks or create regulatory window that allows neobanks to work on the periphery of licensed banks.

The RBI outlined its approach towards digital banks and neobanks, mentioning that even though innovation thrives in the absence of regulations, legislation is needed to ensure sustainable growth⁸⁸. NITI Aayog has recently floated a discussion paper for a digital banking regulatory framework in a phased manner (July 2022)⁸⁹.

COVID-19 has provided a tailwind to digital adoption in banking services, and it is unlikely that the **newly earned digital user base** will roll back after the pandemic situation is completely resolved. The **policy push for MSME growth** and the massive new banking young adult population that expects everything to be done in a few clicks on mobile will provide the impetus for the neobanking segment to grow in the coming years. We can anticipate some market consolidation in the coming years and players who get the product market fit, and reach the critical mass with sound industry partnerships, are likely to prosper in the long term.

The larger retail neobanks with massive funding are poised to do well. Flow of such funding attributes to leadership quality, access to larger funds, and the ability to sustain growth. Over the past year, larger startups like Jupiter, NiyoX, EpiFi, and Freo have raised funds and/or gained decent traction in the market. They are receiving acceptance from the customer base as trusted platforms.

Banks might start looking for alternate platforms to power their digital businesses, including current accounts, savings accounts, BNPL, Credit Card, and Prepaid Lending businesses. The increasing penetration of neobanks in India indicates that these digital-only banks are here to stay and get bigger and better with improvements in the field of financial technology.

⁸³MC177DF24D0B0964448286BC682385CDA1F3.PDF (rbi.org.in)

⁸⁴<https://economictimes.indiatimes.com/wealth/save/payments-bank-deposit-limit-hiked-to-rs-2-lakh-by-rbi/articleshow/81945184.cms>

⁸⁵https://www.ibanet.org/neobanks-in-india#_edn1

⁸⁶<https://www.ibanet.org/neobanks-in-india>

⁸⁷<https://www.livemint.com/industry/banking/digital-banking-units-in-75-districts-likely-to-become-operational-by-july-11651749491964.html>

⁸⁸<https://www.bankofbaroda.in/-/media/project/bob/countrywebsites/india/pdfs/fintalk-newsletter-issue9-10-19.pdf>

⁸⁹https://www.niti.gov.in/sites/default/files/2022-07/DigitalBanking072022_compressed.pdf

NeoBank interview Q&A

Jitendra Gupta, Founder & CEO, Jupiter



Jitendra is the founder and CEO of Jupiter. Known as fintech veteran in India, he has been in the financial services industry for 20+ years. Prior to Jupiter, Jitendra had also started Citrus Pay, a leading online payments platform in India. He sold the company to Naspers owned PayU in 2016 in one of the largest cash exit in India. After Citrus, he also served as Managing Director for PayU India and launched India's first pay later product.

Q What are your views on increasing banks and neobanks partnerships and how would this impact the banking experience for the customer?

A The Neo-banking space has seen a 5X surge in funding from ~\$134 M in FY 2020 to ~675 M in FY 2021. This growth is mainly driven by the increasing banks and neobanks partnerships. Banks like Federal, SMB and Equitas have led the change and have really benefited from the digital capabilities of neobanks strengthening their brand presence in PAN India.

Today, consumers are using apps like Swiggy, Netflix, Instagram, and Amazon, etc., which offer hyper-personalized, seamless service and they expect the same from their banking apps.

The segmented focus of the neobanks has raised customer expectations in terms of product innovation, user experience, and personalized offerings. This has caught the attention of larger banks who are now actively monitoring the ecosystem.

The evolution of consumers' expectations coupled with Neobank - bank partnerships will result in enhancing the overall banking experience in the country.

Q What is your view on the proposed digital bank license by Niti Aayog?

A Today, smartphone penetration is almost 700+ million consumers. Hence, the cost of banking services needs to come down as consumers can avail all the banking services digitally without visiting the branches. A digital bank can not only provide cost efficiency but also leverage data well to meet unserved credit needs towards consumers and MSMEs.

The Niti Aayog suggestions cover the new wave of neobank fintechs which will work with partner banks and serve as a technology layer for customer acquisition and banking activities. In the absence of a banking license, the neobanks cannot undertake banking activities like deposits and lending independently. The Niti Aayog report clearly demonstrates that the market is not mature enough for digital banking licenses in the country because of stringent regulatory and compliance policy.

All said, it is a great step in the right direction. While the current paper focuses on financial inclusion and the MSME sector to address credit gaps there, I hope it opens an avenue for full-stack digital banking licenses in our country.

Q How are neobank bringing efficiency to different banking segments (MSME, gig workers etc.)?

A India has the 2nd largest unbanked population in the world at 190 M people and segments like MSME and Gig economy have long remained underserved. Inactive accounts in India are at 48%, which is ~2X of average in other developing economies of 25%.

The unbanked population and niche segments present a large opportunity for the neo-banks.

Digital banks are building infrastructure which relies heavily on new technology and data instead of traditional ways of operations. Through new age tech and sophisticated underwriting models, digital banks can easily provide credit to underserved segments. In addition, they can also make banking services more affordable to everyone as one does not need to keep minimum balance to incur branch cost. Neobanks help bridge the gap on engagement through customer centric way of building products, a superior UI/UX and better customer service.

My personal belief is that everyone deserves equal service irrespective of balance, while rewards can be provided to customers keeping higher balances/relationship value. Another trend which we can see very soon is the personalization of banking services which is very well adopted in other consumer internet businesses.

Q How are Indian neobanks poised against the global counterparts entering the Indian market?

A Market size of Neobanking is ~\$40 b in FY 2022, which accounts for 2.2% of total banking market. The Neobanking market is now at very nascent stage and the industry is just two years old.

Despite being at a very nascent stage, the industry is seeing rapid adoption in the customer base. It has grown more than double during the last two years of COVID-19. About 10+ million customers are using neobanking services and over 2 million SME are benefitting from automation of SME banking, hence attracting a lot of interest from globally successful neobanks.

However, The Indian market is very different from its global counterparts and poses a separate set of challenges. Indian entrepreneurs and their neobanks have an edge as they know the grit and grind that is required to table customers as well as partnerships and regulatory challenges to succeed in the Indian market.

Q What are some of the key trends from the neobanking space that you are most excited about?

A I believe, rapid customer adoption of neobank offerings is one of the most exciting trend. This coupled with personalization of banking services and products, would become mainstream. For example, Instead of spam calls to all bank customers for cross sell, users would now be engaged through more customized and targeted push notification, ensuring a better conversion and customer experience.

From the incumbent banks' perspective, there is a nudge for delivering superior service and experience which will benefit the customers and the sector at large.

Further, the wave is overall positive in favor of the digital banking, and I expect Indian regulator to accommodate this new regime very soon.

Ecosystem banking: capturing value locked in ecosystems

Overview

EY defines a business ecosystem as a partnership between two or more entities that creates more value than any individual participant could create on its own. Ecosystem business models are formed to co-create a product or service, market to a common set of customers, and share in the value they generate. At least one participant, the orchestrator, coordinates activities between participants, and all participants have their brands present in the final proposition. Banks are now developing digital ecosystems for their financial services to provide a richer customer experience and increase loyalty.

Incumbent financial services players are prioritizing investments in the banking ecosystem. Key reasons include:

- ▶ Consumers seek convenience and want to procure as many services as possible through one purchase
- ▶ Regulations and policies (e.g., open banking and PSD2 in Europe) force financial institutions to open up their doors to third-party service providers with customers' customer consent. Open banking regulation will increase competition in financial services due to lower switching costs for customers.
- ▶ FinTech companies are nibbling customers away from traditional banks, by focusing on the customer journey and the actual needs. The Indian FinTech market is expected to reach \$84 billion by 2025 at a CAGR of 22%.

In India, ecosystem banking is helping banks enhance customer experience and generate long-term value for customers

ICICI Bank launched a 'digital for MSMEs, through their InstaBiz app. in the InstaBIZ app. It provides valuable banking services, including -

- ▶ 'InstaOD Plus' sanctions instant and paperless overdraft facility up to INR 25 lakh
- ▶ Instant and end-to-end paperless account opening facility enabled by advanced APIs for auto-filling forms, identity validation and eKYC
- ▶ Partner applications with exclusive services to support all financial needs of MSMEs
- ▶ Instant digital onboarding on partner platforms

Key drivers

1 Ecosystem convergence

Ecosystem banking offers a single solution to customers who were earlier dependent on complex and disjoint processes across a variety of applications that are run by partners. The large costs and complexity of monolithic technological applications propelled banks toward a purchasing or partnering approach to extend newer services.

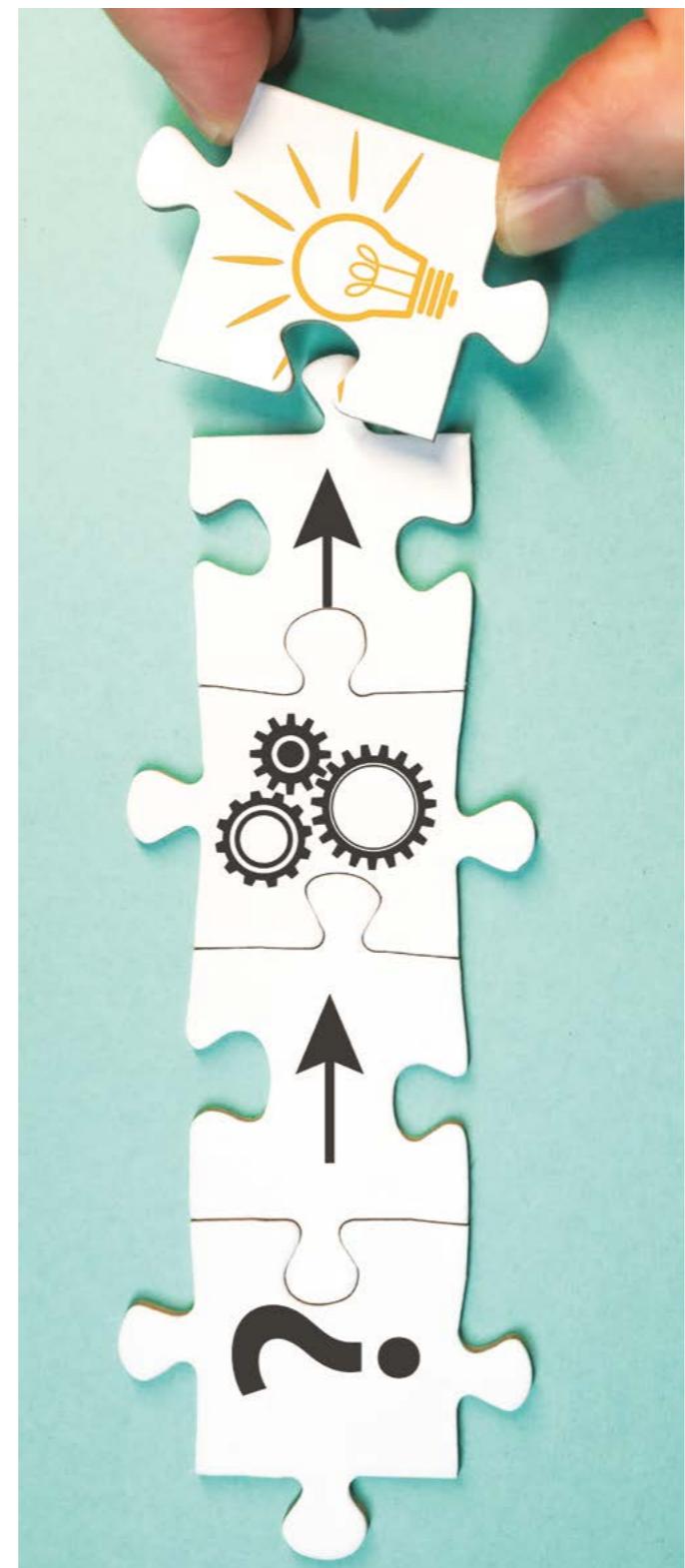


Figure 32: Banking Ecosystem



Over decades, this technology evolved into large monolithic systems and captured the entire know-how and experience of the bank, its business rules, processes, and products. These large applications took decades to build and proved difficult to maintain and adapt to changing market conditions. Against this backdrop, now most banks find themselves in a position where buying may be a better option than building.

ICICI Bank's student ecosystem has come up with Campus Power, which is an online platform catering to higher education needs. A platform offering financial and non-financial solutions for higher education in India and abroad. The portal assists students in sanctioning education loans and also exploring other financial services, like overseas account openings, remittances, and travel insurance. Value-added services like student guides on popular study destinations, admission counseling, test preparation modules, overseas accommodation assistance, and travel assistance.

Several global banks are exploring opportunities in the ecosystem business model playing at one or more industry convergence points. DBS, J.P Morgan, Bank of America, BBVA, Citi, and HSBC are some examples.

Approaches

There are three approaches to launching into an ecosystem offering:

- ▶ **Builder:** Bank owns the platform as well as all the products on the platform (closed ecosystem)
- ▶ **Integrator:** Bank owns the platform and orchestrates a mix of in-house and third party products (open ecosystem)
- ▶ **Provider:** The bank provides its products and services to platforms owned by third parties (open ecosystem)

In a common approach, the bank sits at the center of its own disaggregated financial marketplace, meeting customer needs and controlling costs with AI-enabled products, digital services, new back-office technologies, and redesigned channels that can be complementary to its core offerings and are often created and managed by its third-party partners.

Impact of ecosystem banking on products and offerings

Incumbent financial services players are prioritizing investments in the banking ecosystem. Key reasons include:

- ▶ Expand a bank's digital distribution, improve product quality, and lower customer acquisition costs
- ▶ Cutting the need to develop and support best-in-breed digital solutions and products when third parties have the technology and scale to do it better
- ▶ Enabling access to banking services in other ecosystems
- ▶ Outsourcing processes can help banks provide positive, seamless, and efficient client experiences while eliminating the need for costly updates.
- ▶ Shift non-core products and capabilities to a partner that can allow banks to retain and strengthen customer relationships while focusing resources on core strategic priorities
- ▶ Disaggregate and securely market products and services to other institutions, which can generate additional revenue for the institution and create value for the partner

Challenges

Not all banks are well-placed to start ecosystem banking and they would need help with their core system modernization. This might impact the bank's profitability owing to increased costs. Also, constant regulatory updates make the system complex as the industry players need to align the services as per the regulatory mandates as soon as possible.



Next steps:

For many banks, adopting ecosystem banking may require a holistic restructuring that covers new products and services, mapping the bank's role and opportunities in the customer journeys in other industries, and then re-align the functions with a digital-first mindset.

Banks need to identify clear strategic objectives for an ecosystem business model, and then establish a framework based on those objectives to assess existing capabilities and value chains. It includes:

- 1** Which customer segments should banks target through their ecosystem?
- 2** What value propositions will drive ecosystem participation?
- 3** What product deficiencies and operational inefficiencies need to be addressed, and is that best accomplished through the building, buying, or partnering with a third party?
- 4** Consider what products and/or capabilities they believe are core or create enough distinctive value that they should not be considered as part of an ecosystem
- 5** Banks need to identify the symbiotic relationship with their partners
- 6** Further, an assessment of the partnership's impact on data security, confidentiality, and customer experience is a must

For a bank, the aim is to continue monetizing the ecosystem. The strategy should be in place at the onset, followed by continuous assessment and refresh of the list of partners to ensure strategic alignment and monetization. Collaborating with partners through platform-based ecosystems has emerged as an effective way for banks to leverage customer trust and bolster product and service offerings to improve customer experiences, deepen relationships and drive revenue growth. At the same time, shifting non-core functions to third-party specialists can enhance efficiency. Indian neobanks have already created an ecosystem of services around them through several banks and non-bank partnerships and it is the right time for banks to work on their counterstrategies. It is exciting that India's several major banks are already creating these ecosystems and several others are exploring the possibilities, starting with one element of this ecosystem banking.

Ecosystem banking interview Q&A - ICICI

Bhargavi Sridharan, Head of E-Commerce Ecosystem, API & InstaBIZ BD, ICICI Bank



Business head with 16 years of experience in the digital and financial services sector with demonstrated history of conceptualizing, launching, and building businesses with winning teams.

Brings a strong analytical approach with financial acumen. Works well in entrepreneurial environments and with a partnership-oriented approach.

Graduated in 2005 with an MBA in Finance and Marketing from S.P. Jain Institute of Management & Research and acquired a CFA Charter in 2011.

Q How different is the banking super app approach when compared to ecosystem banking?

A Banking super app and ecosystem banking are digital platform strategies and approaches deployed by banks to stay ahead of the curve in this transformative age by offering next-gen digital customer experience. While both these approaches are different in execution, they share the same philosophy in terms of customer value proposition, namely – customer 360o, interoperability, and value-added services. Customer 360o will present a full stack of financial services to customers through seamless digital customer journeys. Interoperability will open the banking ecosystem to all customers by providing an experience zone to guest and new-to-bank users and up-sell/cross-sell opportunities to existing-to-bank customers. Value added services will enable banks to maintain higher relevance in the lives of all customers across life stages, intent, needs, etc.

While both approaches aim at deriving maximum customer lifetime value, the key difference between the two is – banking super app is a one-stop-shop for all financial and non-financial needs of customers through end-to-end digital journeys in the banks' own digital real estate. Ecosystem banking enables banks to seamlessly embed themselves in businesses and customer lifestyles through APIs/ micro-services. It has become imperative for banks to build ecosystems to survive and thrive, and they may choose either or both approaches for the winning edge.

Q How are banks benefiting from ecosystems today?

A The banking sector is undergoing a major transformation, led by emerging technologies and evolving customer needs. The accelerating digital transformation presents an opportunity to be both more relevant to customers and derive profitability at the same time. However, the pace of change is so quick that it is not practically feasible for all banks to internally develop and manage all the products, capabilities, and services in-house. The bottom line is that banks can generate long-term value through the power of cohesive ecosystems either through banking super app or ecosystem banking.

In contrast to traditional vertical banking, in the ecosystem, all the products of the bank interact with each other and pitch relevant use cases to effectively serve the multiple stakeholders and customer persona who are participants in the ecosystem. Successfully catering to an ecosystem is beyond digital integration, it encompasses policy, credit, risk, underwriting, onboarding, and workflows. All these factors delivered holistically are necessary to enable ecosystem banking.

Banks can derive value from ecosystems through three broad parameters:

- ▶ lead generation for cross-selling opportunities with existing customers (e.g., Providing instant overdraft facility to existing current account customers)
- ▶ lead generation for new business opportunities to new guest users (e.g., Opening a current account for Guest users through leads sourced from Partner portals and Last Mile Delivery efforts)
- ▶ customer engagement opportunities through synergistic digital use-cases (e.g., Enhancing customer experience through hassle-free user flows and increasing throughput generation through embedded partnerships with accounting, payroll, and expense management software platforms, among others.)

Q With the proliferation of ecosystems, will banking products be customer-centric or they have always been customer-centric?

A Infusing hyper-personalization into standardization is imperative to building innovative customer-centric banking solutions. Standardized products are primarily mass-market in nature, aimed at addressing common customer needs, increasing customer adoption, and driving profitability for the bank – such as traditional CASA accounts, overdraft, and trade and merchant solutions. Based on external markers, signals, and inputs about the customers from the ecosystem, powerful back-end analytics engines are further enriched and can create insightful customer persona and provide optimal next-best product recommendations to each ecosystem participant. Additionally, for customers where there is a lesser formal financial footprint, these external inputs from behavior in the ecosystem can help banks understand the customers better and cater to emerging segments. Solutions such as small merchant digital payments acceptance offer listing platforms, short-term borrowings, and working capital based on daily sales receivables during festive sales are relevant examples of ecosystem-led offerings.

As financial services firms aspire to seamlessly embed into the lifestyle of their customers and towards this endeavor are working closely with partners across multiple sectors such as healthcare, agriculture, telecom, etc., to create a win-win-win proposition for customers, banks, and partners.

Q What is the importance of strategic partnerships to a bank?

A Banks that aspire to build market leadership, achieve sustainable growth, and reduce the time-to-market of new innovative digital solutions understand the criticality of strategic partnerships. While banks value trusted ecosystem partnerships to further bolster customer value, the nature and mode of partnerships are driven by evolving scenarios and business priorities.

In this transformative era, Banks and FinTechs are competing, collaborating (*ICICI Bank FASTag on GPay and PhonePe*), and co-creating solutions (*ICICI Bank's business banking customers can enable linkages of their banking with finance & accounting platforms and HRMS portals*) to present integrated solutions to customers and drive operational & cost optimization efficiencies as well. Conscious of the dynamic regulatory landscape, legal & compliance guidelines and commercial arrangements, Banks usually forge strategic partnerships (such as Amazon Pay ICICI Bank credit card) or invest in organizations. Forging multiple strategic partnerships and alliances enables banks to serve their customers better.

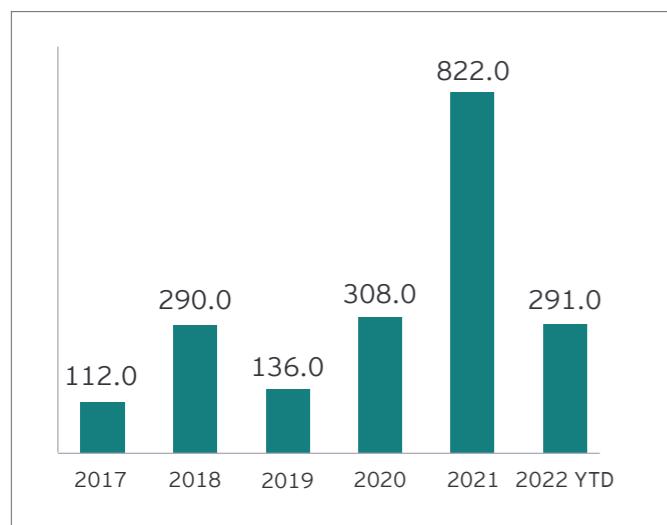
InsurTech: a new wave of product and distribution innovation

Overview

According to S&P Global Market Intelligence, while InsurTech fundraising has been brisk across Asia in recent years, innovators in China and India appear best positioned to move beyond a supporting role and confront the region's industry incumbents. Indian InsurTech space has grown considerably over the past few years, with steep funding growth (more than doubled in the past two years) enabled by innovative business models.

Current state of InsurTech adoption in India

Figure 33: India's InsurTech recorded a ~3X y-o-y growth in total funding in 2021 (\$, million)⁹⁰



YTD - as of June 2022. Source: Inc42, Tracxn, EY analysis

While huge internet companies compete to become insurance digital intermediaries, established carriers are developing their digital channels. Startups that help incumbents and major tech companies make this transformation will probably succeed with innovative products and point of sales leveraging technology

- **Tech enablers:** Artificial Intelligence (AI) /Internet of Things (IoT)/ and Machine Learning (ML) are now a tipping point in insurance. With the emergence of the wave of machine learning, deep learning, and artificial neural networks, the insurance industry has shifted from detecting and repairing work to predicting and preventing mode. FinTech companies are leveraging intelligent bots with RPA, chatbot, and NLP that have given rise to parametric insurance, where the bots automatically compute the premium based on AI/ML and help pay claims automatically.

- **Automated claims:** InsurTech startups create platforms to digitize claim processes by developing technological solutions such as video, mobile options, self-service leveraging machine learning (ML), and robotics. Intelligent automation can help insurance companies to improve customer satisfaction, increase employee productivity, and decrease fraud-related costs. For example, Liberty General Insurance partnered with Inspecktlabs in 2021 to roll out automated car inspections and claims assessments using AI-based technology enabling end-customers to capture photos or videos of a car for policy renewals and claim assessments, allowing insurance and automotive players to reduce 98% of the cost of inspection and 95% of the time required for inspections. The platform also constitutes several specialized features for fraud detection, including the detection of prior and hidden damages

- Within India as well, the focus of InsurTechs has largely been on simplifying the customer purchase experience through web aggregation and comparison sites such as Policybazaar and Insurance Dekho. However, Indian InsurTechs are slowly and gradually tracking global InsurTechs, in terms of coming up with newer innovations around value chain transformation

- **Marketplace:** InsurTechs are driving innovation across all key themes by creating a marketplace of offerings. It helps in expanding insurance penetration in India by selling to the masses in their language and facilitating claims in their time of need. For instance, One Assure's marketplace model enables informed purchase of health insurance basis comparison, modification of insurance plans during renewal, and claim support.

- **E-commerce insurance marketplace** players like Amazon and Flipkart are increasingly partnering with Insurance Companies to sell insurance plans. This has been a major trend, mainly post COVID-19. For example,
 - In May 2020, Flipkart partnered with Aegon Life to sell life insurance plans with COVID-19 cover⁹¹
 - Amazon pay has entered the insurance distribution business by partnering with Mumbai-based motor insurance provider Acko General Insurance

- **Online first Insurance:** Several startups are scouting for new self-sufficient distribution models to boost their digital ambitions while reducing dependency on third-party platforms. These insurance providers sell insurance products such as life, property, casualty (P&C), and health premiums through their digital channels.

- **Software/White Label/Application Programming Interface (APIs):** These companies deliver software solutions to insurance companies and brokerages, providing solutions such as risk assessment, underwriting, fraud detection, regulation, policy administration, marketing, sales, chatbots, and customer relationship management (CRM) tools.

- **Embedded insurance:** Automation and digitalization, especially in product underwriting and distribution, have enabled a quick rise in embedded insurance. It refers to the bundling of insurance along with a product or service at any point of sale. For example, adding insurance coverages alongside cab rides, cycles, cleaning services, mosquito illness, COVID-19, pets, etc. Factors that propelled embedded insurance adoption in India are large untapped market opportunities, simpler onboarding processes, lower customer acquisition costs, hassle-free insurance claim processes, and data-driven product creation. As per a recent survey of 574⁹² banking customers in India, 91% of Indian digital bank customers would be interested in receiving embedded insurance offers based on their transaction data where convenience is the primary driver for their interest, as stated by 63% of the respondents. For example, OYO Hotels, in partnership with Acko Insurance, offers complementary health insurance coverage during the visitors' stay.



- **Increase in awareness, post-COVID-19:** Increasing awareness, online distribution, competitive pricing, and simplified policy terms are making insurance more accessible. For example, Digit Insurance recorded an increase of ~2X in the number of health covers sold between 2020 and 2021

Owing to COVID-19, the entire Insurance industry has undergone some degree of digitalization or automation or both, especially in product underwriting and distribution. This has paved the way for two major trends – health InsurTechs and point-of-Sale (PoS) insurance.⁹⁵

Figure 34: Insurtech Trends

Trend	Description	Players
Health-related InsurTechs	There is an increased awareness and necessity of health insurance post-COVID- (>300% increase in demand for health insurance post-COVID as per Just dial customer insights), leading to increased demand for the health-related InsurTechs. They have undertaken various innovative models to enable efficient and flexible customer expectations.	
Point-of-scale (PoS) Insurance	The market for digital POS platforms has taken off in the last few years. POS channels can seamlessly embed insurance in their customer journeys unlocking new revenue generating opportunities and winning increased loyalty from customer	

Source: EY analysis

⁹⁰<https://inc42.com/features/how-insurtech-can-grab-maximum-share-in-trillion-dollar-indian-FinTech-opportunity/>

⁹¹https://www.business-standard.com/article/news/ani/flipkart-partners-with-aegon-to-sell-quick-access-life-insurance-policies-120031600524_1.html

⁹²https://www.business-standard.com/content/press-releases-ani/indian-bank-customers-ranked-top-in-welcoming-embedded-insurance-offers-121073100418_1.html

⁹³<https://economictimes.indiatimes.com/wealth/personal-finance-news/covid-brings-life-insurance-penetration-in-india-to-global-levels/articleshow/89243583.cms>

⁹⁴<https://www.ibef.org/download/Insurance-October-2021.pdf>

⁹⁵<https://www.healthcareradius.in/clinical/covid-corner/india-sees-a-spike-in-demand-for-health-insurance-post-covid>

1 Health InsurTech – the InsurTech pièce de resistance of the year?

A key differentiator for health InsurTechs has been the innovation undertaken within their distribution channels to attract retail customers and SMEs, with easy-to-purchase plans, along with a higher degree of customization rather than offering run-off-the-mill insurance plans.

Healthcare-related InsurTechs have undertaken innovation, specifically within their distribution channels, to enable more efficient and flexible customer experiences

Distribution innovation with subscription-based plans	InsurTechs are now present across the customer journey value chain embracing changes across customer experience (CX), distribution experience, and product innovation	Seamless insurance plug-in through embedded insurance
<p>Few health InsurTechs are innovating around their distribution strategy to provide more flexibility to customers and offer them a higher degree of control</p> <ul style="list-style-type: none"> Onsurity provides healthcare plans to SMEs, MSMEs, and startups in the form of monthly health memberships, which consists of group health insurance, along with additional benefits such as discounted medicines and health check-ups The InsurTech has also recently launched a credits program to offer startups access to an affordable employee benefits plan in their initial stages of scaling up Kenko Health provides subscription-based healthcare plans for individuals and SMEs, inclusive of charges such as OPD, medicines, diagnostic tests 	<p>Sales journeys are seamlessly integrated with customer journeys building 360-degree customer understanding. Manage high-value activities through digitally enabled human beings (digital face-to-face, remote to customer), ensuring the outstanding customer experience</p> <ul style="list-style-type: none"> AI-based firm, Mantra Labs, partnered with Religare (now Care Health Insurance) to help implement contactless customer centers during COVID-19. Mantra Labs also helped Care Health build its self-help mobile application to help provide a simplified digital insurance journey to its customers Health InsurTechs like Plum, which provides a healthy ecosystem with access to services like health check-ups) Exegesis helps insurers digitize and customize journeys for employers and employees with a comprehensive employer/employee health platform Pazcare insurance automates employee insurance and healthcare benefits, enabling remote and hybrid teams to access benefit plans and file insurance claims in an instant manner 	<p>InsurTechs are partnering with technology and service industry players to embed health insurance solutions, in the form of "opt-in" options, within the customer's digital purchase journey</p> <ul style="list-style-type: none"> MakeMyTrip partnered with GoDigit in 2021 to offer to provide coverage against COVID-19 in the form of embedded insurance through its travel portal⁹⁶ InsurTech player Bimaplan launched its insurance-in-a-box product in 2021, allowing its partners to sell embedded insurance products. It has started pilots with five strategic partners, which range from FinTech startups to traditional financial services companies InsurTech player Riskcovry has developed a one-stop insurance platform that enables omnichannel distribution (embedded) for any business, across any insurance product (retail, micro group sachet, etc.) and insurer category (health, general, and life)

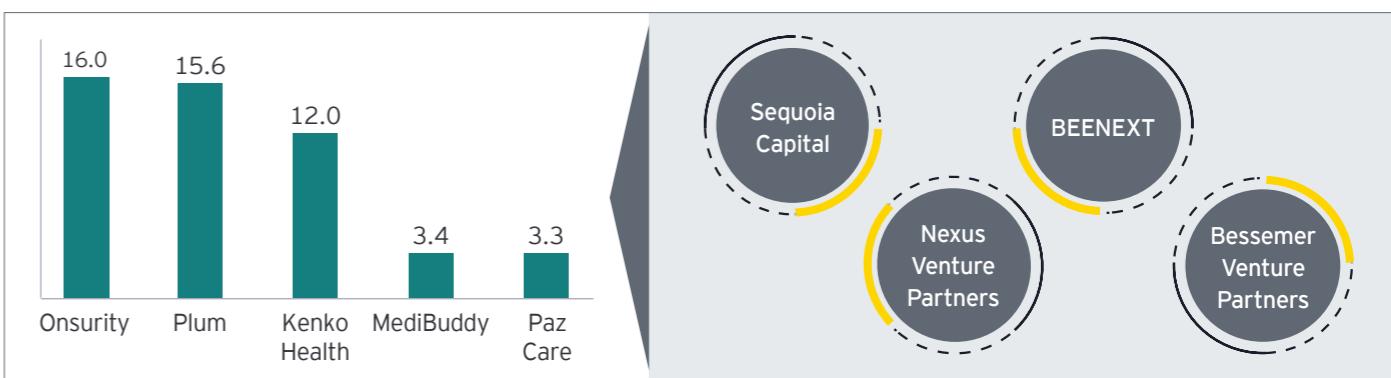
Source: EY analysis

Innovations by health InsurTechs:

- Health InsurTechs are also focusing on offering coverage for additional expenses, including out-patient department (OPD) expenses, which is something that traditional insurance players have added recently, post COVID-19
- Few health-related InsurTechs, such as Plum and Vital, also provide additional services such as doctor consultations, health check-ups, and mental wellness sessions

This has given rise to various plans for the health InsurTech like **distribution innovation with subscription-based plans, claims processing and payment support through benefits administration, and seamless insurance plug-in through embedded finance.**

Figure 35: Top five Indian health InsurTechs with the highest funding received in 2021-22 (\$ million) and active VC firms^{97, 98}



2 Point-of-sale (PoS) Insurance – leveraging hybrid distribution

The pandemic has accelerated the growth of digital channels that leverage digital point-of-sale (POS) platforms, and now the ability to buy insurance online without an agent's help has taken hold. Consumers now expect to use online tools to investigate, learn and buy insurance products. Therefore, insurers are looking at digital channel options or implementing digital POS technology to tap into the opportunity.

A more digital experience has become the norm for all involved, giving rise to the below-mentioned trends:

Major trends in the insurance market - Distribution

Millennial buyers

- New customer experiences
- Created higher expectations for time efficiency and personalization-across all industries

Rise in digital channels

- Digital channels are growing across insurance journey from education to purchase to service
- Specially addressing younger customer segments

Agent-led channels

- Agents are leveraging digital tools for better coverage and reach
- Agents are learning to work in a hybrid world

Insurance sales at the POS in e-commerce are well embedded in the Indian market now. InsurTech players like Digit and Acko, as well as traditional insurers such as Bajaj Allianz, are partners of these major e-commerce platforms selling insurance products to match the products' insurance needs. Interestingly, now the PoS insurance model is tapping into the offline and agent-driven distribution of insurance to cover the 360 degrees of insurance sales.

The Indian insurance business is still majorly agent-driven and is likely to remain so for the foreseeable time. Hence, IRDAI's move to ease the compliance around who can sell pre-underwritten products of insurance by easing training and certification requirements to become POSP is a great step.

Digital PoS insurance is a modern solution that offers a way to bring products to market quickly, meets customers where they want to shop (online), and provides an exceptional online experience.

Digital PoS evolution and impact:

The market for digital PoS platforms has **expanded in the past decade, fueled by venture capital funding**. This market comprises startups and experienced insurance technology companies that have either developed their platforms or made acquisitions. Even though experienced companies have been around for years, often selling core policy administration systems, they launched their digital PoS platforms only in the last five years.

BSE Ebix, an insurance broking private limited (BSE Ebix), a joint venture between BSE, India's leading stock exchange, and one of the leading insurance solution providers EBix, Inc., seeks to deploy the entire insurance life cycle from customer relationship management (CRM), PoSP management, multi-quoting, digital payments, and proposal submission to insurance company's policy administration system. The intention is to go phygital – combining the physical reach of tens of thousands of distribution outlets across the country with technology and processes, offering 360-degree solutions including claims notification and help guidance in claim settlement.

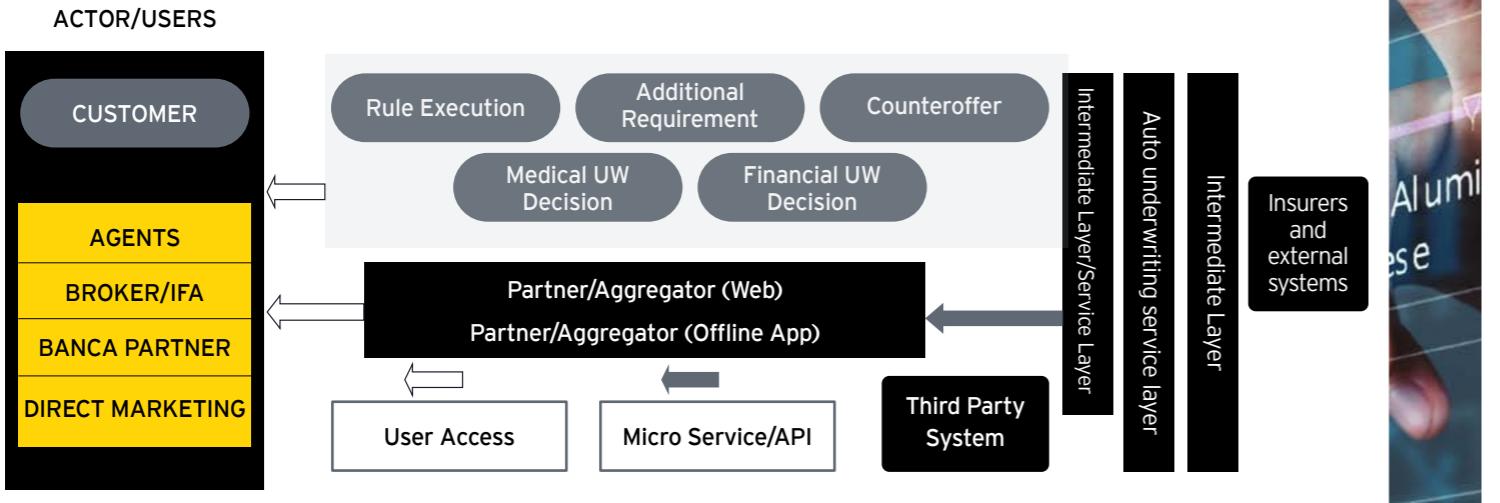
⁹⁶<https://www.makemytrip.com/tripideas/blog/makemytrip-covid-insurance>

⁹⁷[https://yourstory.com/2021/08/healthcare-startups-onsurity-raises-series-a-round/amp](https://yourstory.com/2021/08/healthcare-startups-onsurity-raises-series-a-round/)

⁹⁸https://techcrunch.com/2021/05/30/indian-health-insurance-startup-plum-raises-15-6-million-in-tiger-global-led-investment/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xLmNvB8&guce_referrer_sig=AQAAACqtTxHzKkZ4tMkTD3pcSMiInVMsC0rJV6P1glu_NJxpl2coFTRws9-epooBEamkXTWoZwYzO3f07hrYV2xWrPNEj5W8Kkk4-vEPYSXuucBxBRZdLmkyMfUUStU74xHxFpV6YBktqVnQJRwN9U6nY80gjGVIZkHXTYtE_z

Insurance-focused and Mumbai-based digital PoS provider, C2L Biz, enables producers to manage the end-to-end sales process. It covers lead activity to collateral management, financial need analysis, product recommendation, sales illustration and e-application, including documents and signature capture, field underwriting, and payment processing on a hand-held device both online and disconnected.

Figure 36: Functional overview of POS insurance underwriting⁹⁹



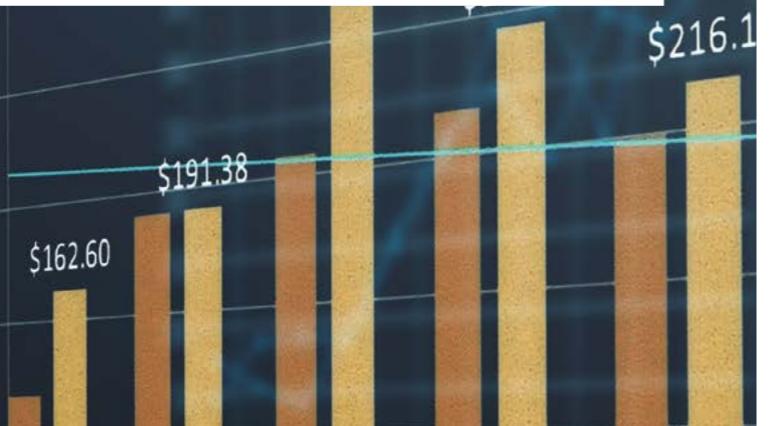
Source: C2L Biz, simplified illustration by EY

Embedded insurance: PoS channels can seamlessly embed insurance in their customer's journeys in most cases. It not only adds to their revenue stream but also wins them additional loyalty from the customer as they come back for repair or replacement. Additionally, more people prefer embedded insurance because of its convenience.

Increased financial inclusion: India's number of hands holding smartphones is continuously increasing. Hence, easy availability of insurance on digital platforms accessible through phones is already helping reduce insurance's under-penetration substantially in India.

Challenges

InsurTechs in India face challenges not only to adhere to the changing regulations but also face increased cost to constantly align their systems with complex network infrastructure. They also face difficulties in tapping the rural customer segment owing to obstacles linked to knowledge and cost that widen the inaccessibility gap. Life insurance coverage in rural India is set at a mere 8 to 10% while less than 20%¹⁰⁰ of the rural population has any form of health insurance. Insurers need to build trust to improve insurance adoption in rural India. It is a challenge to establish confidence with the rural population owing to the lack of appropriate PoSPs or local agents for physical help. This makes InsurTech a sweet offering limited to a percentage of a huge economy, which limits its scope to capture budding as well as underdeveloped markets.



Next steps

Mordor Intelligence expects the online insurance market in India to reach \$2.8 billion (INR 220 billion) by 2024¹⁰¹. Owing to increasing self-service portals and ever-changing insurance needs, it is imperative that InsurTechs keep innovating at various levels.

► **PoS:** To remain competitive in an increasingly challenging market, insurers need to digitize. They must rethink their normal sales process. For an insurer that wants to add a direct-to-consumer or hybrid D2C model to their existing distribution channels, digital point-of-sales platforms can help them with this transformation.

- **Health-related InsurTech:** Dramatic increase in online transactions across categories like payments, pharmacy, medical consultations, gadgets, and vehicles, is a large push on creating sachet or micro-insurance products/bite-sized insurance that could be embedded across these multiple categories.
- **Other emerging pockets of opportunities:** InsurTech players enabling cyber and digital asset protection cover increasingly align with metaverse opportunities. For instance, Nexus Mutual, Aigang Network, Etherisc, Sweetbridge, Celsius, Nexo, Libra Credit, and others established a consortium that safeguards and secures collateralized crypto-backed loans.
- **Data fueling underwriting innovation:** Indian InsurTechs are likely to follow suit of the global InsurTechs, driven by higher customer acceptance of technology and digital channels, increasing health awareness and usage of IoT devices such as fitness trackers, and digital push provided by the government in the form of the NHS. A few of the focus areas for the InsurTechs in the near term are:
 - **Auto insurance:** Leveraging customer data through IoT devices and telematics to apply data-driven algorithms for determining optimal premium pricing based on customers' driving behavior. Also, help incentivize safe driving behavior by offering premium discounts. For example,
 - *Acko is one of the leading Insurtech players in the Auto Insurance domain. Data Analytics and low-cost insurance products are some of its InsurTech solutions. The company also offered micro-insurance services through a partnership with Ola Cabs. Acko allows customers to purchase auto insurance policies entirely online at low prices in a short amount of time.*
 - **Life insurance:** Accelerated underwriting to help speed up the underwriting and policy issuance process through forgoing medical examinations and instead leveraging customer data and historical medical records to determine premium rates. For example,
 - *'Protect me well' is API-first comprehensive insurance needs analyzer that analyzes ten products across life, health, and general insurance in one go providing relevant information based on customer data*
 - **Health insurance:** Prevention-focused approach through offering premium discounts to customers indulging in more health-appropriate behavior, with data gathering enabled through IoT devices such as fitness trackers and customers' health records. For example,
 - *Pazcare is the leading platform to get employee healthcare benefits. Insurtech provides a dashboard for the employees and the HRs to keep a track of the active group insurance policies. The platform allows employees to increase their insurance coverage and makes claims quicker and easier.*
- **Parametric insurance:** Providing insurance protection against weather-related events causing physical losses, through leveraging technologies, such as satellite imagery, IoT, and weather-risk modeling to provide accurate pricing based on risk insights. For example,
 - *Post-harvest solutions provider Arya Collateral has partnered with the Agriculture Insurance Company of India to launch a weather-based parametric insurance product for agriculture warehouses.*
- **Rural marketplace innovation:** Rural marketplace innovation will significantly grow in the Asian region in the next five years. Currently, few players are addressing the underserved section of society. For example,
 - *TipTop Insure created one of India's largest retail rural insurance distribution networks under the PoSP model in 2021. It aims to create an ecosystem that will cater insurance needs of the most underserved segments of society – 'The Rural Consumers'*
- **Fire insurance:** The Insurance Regulatory and Development Authority (IRDA) has introduced standard product guidelines (Bharat Griha Raksha, Bharat Micro Udyog Suraksha, and Bharat Micro and Small Businesses Security) for small enterprises to protect against fire and other risks. This can provide an impetus for insurance companies to prepare alternative products covering fire and allied risks, thereby increasing the coverage of the fire. With the growing supply chain penetration, e-commerce players will require increased risk protection for their warehouses, creating opportunities for InsurTechs.
- **Value chain transformation:** InsurTechs are gradually coming up the curve with a greater focus on other value chain elements, such as claims and underwriting, where there is a need for disruption to enhance claims processing efficiency, and develop newer and more accurate pricing models.
- **Next-gen digital commerce:** The union government has set up The Open Network for Digital Commerce (ONDC), a non-profit entity, to boost local commerce across segments, such as mobility, grocery, food order, and delivery, hotel booking, and travel, among others, to be discovered and engaged by any network-enabled application through partnerships. The protocol seeks to allow anyone to create their e-commerce marketplace and tap into the ONDC network to get sellers. With dominant retail brands (e.g., Amazon, and Flipkart) already competing for market dominance, other players might have to create such platforms to survive in the new world. Across insurance, ONDC could enable an open and democratized way for organizations to conduct insurance business leveraging the open ecosystems by digital building blocks.

⁹⁹<https://c2lbiz.com/auto-underwriting/>

¹⁰⁰The unexploited insurance market of rural India (indiatimes.com)

¹⁰¹<https://www.mordorintelligence.com/industry-reports/online-insurance-market-in-india>

Insurtech interview Q&A - Onsurity

Yogesh Agarwal, Founder & CEO, Onsurity



Onsurity is founded by Yogesh Agarwal, who holds the title of a 'Fellow of the Institute and Faculty of Actuaries' – with a specialization in General Insurance from London, and is a Fellow of the Institute of Actuaries of India. He has been instrumental in creating a culture of business excellence in his previous roles, including Lux Actuaries, Shriram General Insurance Co., KPMG, etc.

Q Is Insurtech transforming the sector from a push-based industry to a pull-based one?

A Insurance will always be a pull-based product, where the products are offered based on demand creation and needs generated from the consumers. For example, motor insurance is an essential and obligatory product after vehicle purchase. Health insurance for consumers above the age bracket of 40 years is gradually becoming mandatory. Therefore, it will be the demand side of the consumer which would make insurance a pull-based product.

Here is how Insurtech can make the product a pull-based demand among consumers:

- ▶ By ensuring the customer gets a 'wow' claim experience, solves the problem of trust and reliability in the product and helps witness an increased adoption
- ▶ Create or enable the creation of products for the emerging new markets which are currently not served by the traditional insurance companies. If the product meets the need or the requirement of the customer, it channelizes pull-based demand
- ▶ Insurtechs with the help of technology are providing more transparency, making insurance easy to understand for consumers. This makes the buying decision easy and seamless.

Q What are the key drivers for the increased funding activity in the Health InsurTechs space?

A Here are some key drivers for the funding activity in Health Insurtech space:

- ▶ Overall, health insurance penetration drives funding. At least 30% of India's population is under-penetrated.
- ▶ The Union Budget has allocated 86,200 crores for overall healthcare spending in India. Incentivizing new startups to grow in this sector.
- ▶ The dual effect of health insurance penetration and healthcare spending becomes the reason for exponential growth.
- ▶ Unlike motor insurance, where still major distribution will always be owned by default distributors, car dealers in case of new vehicles or lending institutions for old vehicles. In health insurance, there is no possibility of such default distributors. Hence, Insurtech startups lead to increased funding activity.
- ▶ The TAM is very large and needs a lot of digital players to cater to this fragmented market.

Q Are you seeing maturity in some categories of digital insurance products?

A Yes. In motor and term life insurance there is increased engagement and maturity in these categories. With the advent of Insurtech platforms, insurance as a digital product was the key focus area over the last five years. With an increased impetus on product standardization, the products have become easy to compare and thus drive self-serve purchases. This is a key sign that some of the insurance products have become mature.

Q How embedded insurance is helping in increasing insurance penetration in the country?

A Embedded insurance empowers the availability of sachet products, which makes Insurance affordable and therefore, many customers experience insurance for the first time. This gives a window to Insurtechs to build trust in their brands among the consumers.

Micro-embedded products in insurance also enable data generation, which in turn helps Insurtechs to launch new and better products, typically not possible on a traditional annual product of insurance. For example, Insuring a trip for a missed flight, performance-linked healthcare in the gig workforce.

Q What are some of the key challenges faced by the sector? How can the regulator support address some of these challenges?

A The key challenges faced by this sector are:

- ▶ Trust deficit in insurance is due to poor claims experience clubbed with a history of mis-selling. The insurance penetration in India stands at approximately 4.2% which is less than global standards of 7.2% according to Economic Survey 2022.
- ▶ Too many terms and conditions and poor coverage level makes the product difficult to understand, and in many cases even non-claimable. This has been one of the primary reasons for creating a trust deficit.
- ▶ High cost of distribution (>40%) makes the product expensive and hence reduces product value proposition, leading to a poor adoption

Here is how the Regulator has helped and can assist further:

- ▶ The regulator has come a long way to resolve the trust deficit issue. For example, adding a cap on distribution expenses of 30% and closely monitoring customer grievances and embarking on policyholder protection.
- ▶ The regulator can help create a sandbox for encouraging insurance companies to partner with startups to drastically improve the claims experience of customers.

Q What excites you about India's InsurTech growth? Which segments of Insurtech are going to experience significant growth in the coming years?

A Some noteworthy points that excite me about India's Insurtech growth are:

- ▶ The overall digital adoption of India, smartphone penetration, declining data cost, and internet usage is a great factor. The government's aim to achieve a US \$1 trillion Digital Economy by 2025 is a whopping factor.
- ▶ Overall, insurance under-penetration, due to lack of financial literacy, lack of awareness of need and availability of Insurance as a product, complex products, and low household income, are some factors that can enable the growth of sachet insurance in India.
- ▶ The state of Technology of incumbents will not allow startups to go to this untapped and under-penetrated market.

Some segments, Insuretech is foraying into:

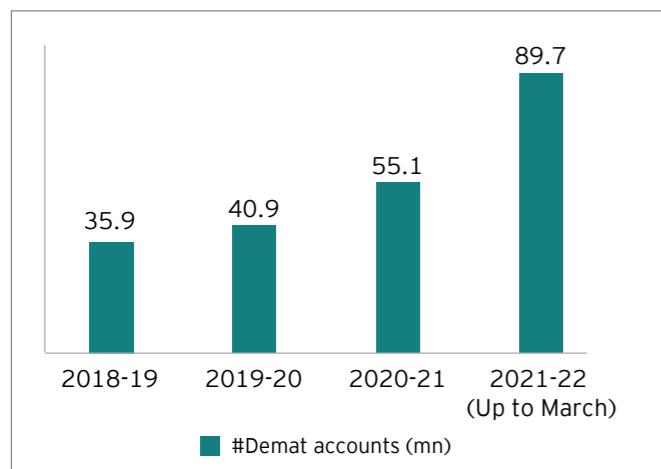
- ▶ Health insurance (63.75% of total healthcare expenses in India are out-of-pocket expenses, hence provides a huge untapped market for growth)
- ▶ The overall wellness and OPD (out-patient department) insurance (54.8% of total healthcare expenses is what India accounts for)
- ▶ A focused approach to cater to the insurance needs of SMBs
- ▶ Building scalable technology infrastructure – particularly the ones that help in ease of insurance claims settlement and enhancement of customer experience.

Alternative investment platforms: finding an opportunity in the equities market slowdown

Overview

Historically, Indians have invested their surplus in physical assets, real estate, and FDs, refraining from investing in capital markets, as reflected in the low number of demat accounts penetration. But the last two years painted a completely different story in the equities market since the growth in the number of demat accounts in the last two years has increased at a phenomenal rate.¹⁰²

Figure 37: 2.5X growth in #demat accounts (million), 2019- 2022



Source: RBI, SEBI, Business Standard

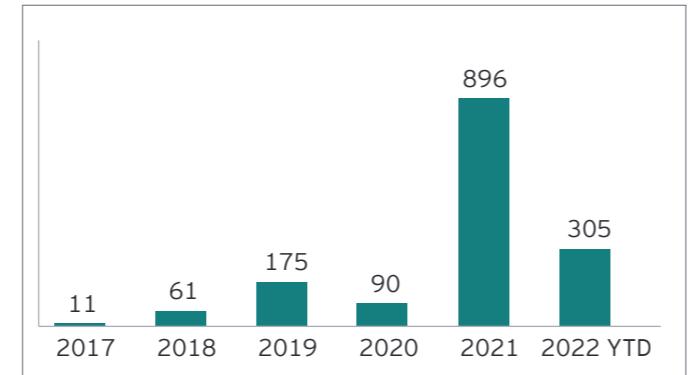
During the pandemic (2020-2021), the number of demat accounts jumped 2.2 times¹⁰³, while combined AUC doubled. The following factors underpinned the growth:

- An increase in smartphone usage
- Easier digital onboarding of customers
- Attractive returns delivered by the equity markets
- Poor returns from savings and FDs
- Increased awareness and investment literacy
- Easier and cost-effective access to simple and intuitive investment (WealthTech) platforms

Current state of WealthTech companies in India

In 2021, the market recorded 10X growth in the WealthTech investments versus 2020.

Figure 38: India Wealth Tech funding (\$ Million)



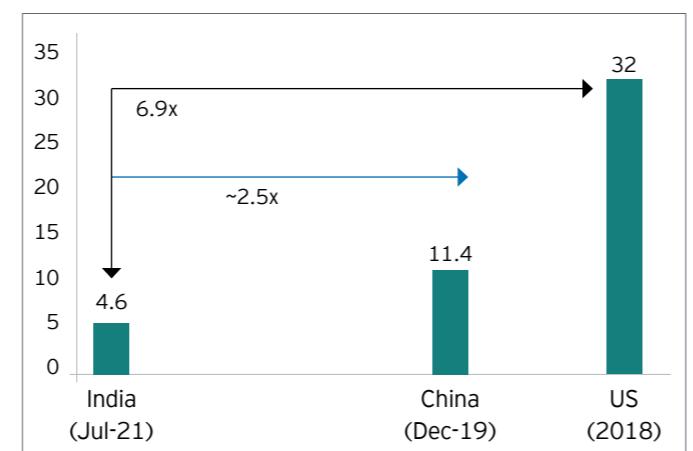
YTD - as of June 2022. Source: Tracxn, EY analysis

India's WealthTech market currently manages ~\$20 billion in AUM¹⁰⁴, which is expected to increase to \$237 billion by 2030. With that, the market size (in revenue terms) is expected to increase from \$0.2 billion in 2021 to \$2.3 billion in 2030.

Upside potential

India's recent surge in Demat is notable, however, there is still a huge gap between Indian retail investors' equity market participation vs. other major economies like the US and China.

Figure 39: Demat penetration (%)¹⁰⁵



Source: HDFC securities

¹⁰²<https://pub.gov.in/PressReleaseframePage.aspx?PRID=1780999>

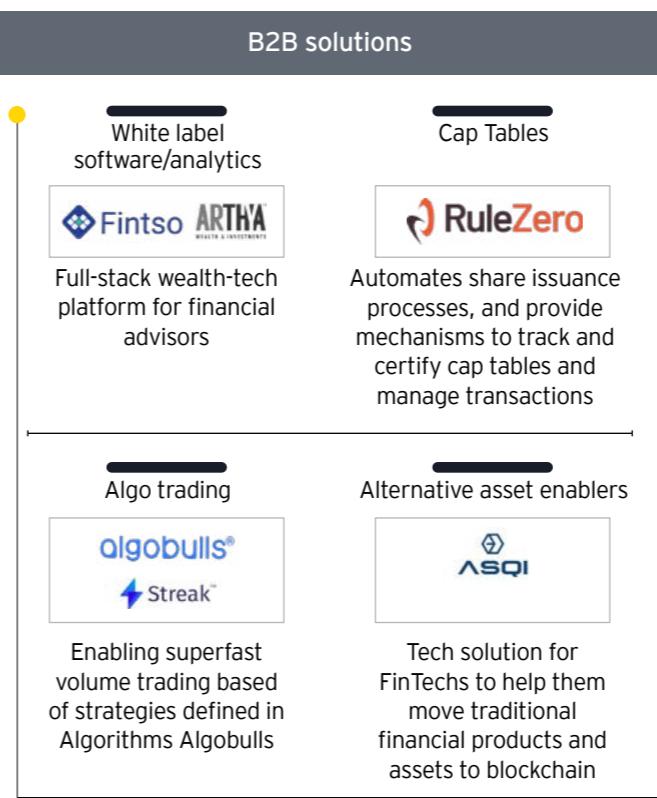
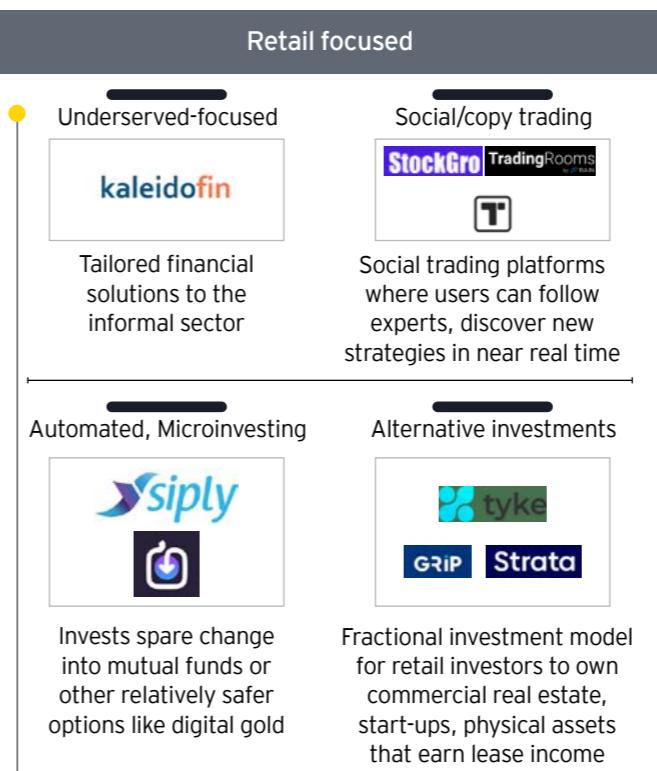
¹⁰³https://www.business-standard.com/article/markets/india-s-demat-account-tally-up-63-to-89-7-million-in-fy22-shows-data-122041401088_1.html#:~:text=The%20number%20of%20active%20dematerialised,shows%20data%20provided%20by%20depositaries.

¹⁰⁴<https://www.financialexpress.com/industry/banking-finance/indian-fin-tech-market-to-achieve-1-trillion-aum-by-2030-report/2623959/>

¹⁰⁵<https://www.hdfcsec.com/hsl/docs/Fintech%20Playbook%20-%20E2%80%98Nudging%20E2%80%99%20the%20long%20tail%20of%20standalone%20brokers%20-%20HSIE-202110202205014903833.pdf>

Compared to the US or China, where demat penetration is 32% and 11.4%, respectively, India's penetration is low, which is around 7.1%. Having said that, things are looking bright for the years to come. The number of active dematerialized (demat) accounts in the country jumped 63% in the past 12 months to 89.7 million in the financial year 2021-22 (FY22). This is expected to reach 134 million by FY25^{106, 107}

Figure 40: New breed of WealthTechs for new and traditionally underserved Market



Revenue models:

- Subscription fees is a common revenue stream for WealthTech players. Customers are usually open to paying a monthly or annual fee for sound portfolio advice and updates. For example, Arthyantra, Smallcase, and Upstox charge fees for services that can also be for a specific product or premium feature offered by the platform.
- Cross-selling commissions help platforms, such as ET Money, that primarily sell direct mutual funds and do not get a direct commission from mutual fund houses. These platforms cross-sell loans, insurance, and other VAS (such as mutual fund marketing on their platform) to generate indirect revenues.
- Revenue sharing model is used by some of the B2B2C companies, such as Fisdom, that partner with banking institutions and help them offer more products to customers.
- Brokerage charges are a common revenue stream for brokerage platforms, such as Zerodha and Upstox, that charge a fee for every intraday trade.

Regulatory implications:

WealthTech as a sector in India flourishes under regulatory watch. These initiatives include:

- Regulatory Sandbox for WealthTech firms to experiment on a pilot basis
- Allowing e-commerce entities to sell Mutual funds from their platforms
- Allowing FinTech companies to apply for mutual fund licenses is subject to having a minimum net worth \$12 million (INR1 billion)¹⁰⁸, multiple FinTech companies have shown interest and a few FinTech players, such as Zerodha and NAVI have already obtained mutual fund license
- Tightening the noose on Algo trading in the wake of recent unfavorable market incidents
- SEBI is watchful of celebrities endorsing cryptos and red flagging it

These steps, coupled with various other initiatives such as identification and removal of dated provisions that have lost relevance, aim to ensure ease of doing business by the WealthTech firms within the regulatory framework while trying to reach the vastly under-penetrated Indian Wealth Management Market.

Navigating through the shaky unit economics of discount broking

WealthTech firms and VCs are keenly looking at the unit economics for profitability. The unit economics for the overall industry is witnessing a compression, predominantly driven by pricing-led disruption by the discount brokers. However, analysts anticipate that a growing customer base, expanding wallet size, increasing activation rates, and improving the maturity of these new-to-market customers will help offset the yield compression in the long run.

While the bellwether "Zerodha" was the first to introduce free delivery trades, all the FinTech brokers have mirrored the discounted "flat-fee" pricing. "Upstox," India's third-largest broker in terms of active clients with a market share of 13.9%, recently upped its pricing in the delivery segment from "NIL" to INR20/order. New-age FinTech brokers, including Uptsox, Paytm Money, and Groww, have been incurring exorbitant marketing and customer acquisition costs and have reported losses in FY20.

The recent change in regulatory guidelines (Sebi (Mutual Funds Amendment Regulations, 2021) from three years of profitability (of the past five years) to a minimum net worth criterion of ~\$13 million (INR1 billion)¹⁰⁹ has meaningfully lowered the entry barriers for challengers. Discount brokers such as Zerodha (through organic route) and Groww (through inorganic route) have acquired AMC licenses and are likely targeting the passive fund investing space.

Having made serious inroads and tapped into the direct equity investments space, discount brokers are now beginning to foray into other alternative investment products aligned to the emerging needs of the new-gen consumer segment (Millennials and Gen-Z). For example, Cube Wealth is helping individuals to invest in multiple asset classes, including equities, mutual funds, P2P lending, gold, and even charitable investing to build a well-rounded portfolio.

While equity-focused WealthTech companies are figuring out the business relevance, retail investors are looking for diversification. Alternative investments have emerged as a viable option in the wake of prolonged poor performance of the equities market in 2022.

What are alternative investment options and platforms?

Retail investors' search for profits presents an opportunity for new business models that focus on fractionalization of real estate, digital gold, investments in startups, crypto, and NFTs. Consider this: By Dec 2021, India had ~20 million cryptocurrency investors with \$10 billion in crypto investments¹¹⁰. Although the regulatory stance is blurry, new players are emerging in India's crypto and NFT space. India already has two crypto unicorns in Coin DCX and CoinSwitch Kuber.



Types of solutions

The emerging alternative investments solutions ecosystem consists of:



Let us take the example of some of these interesting models and players:

Fractionalization of ownership

- ▶ Fractionalization of real estate enables retail investors to be owners of commercial properties, e.g., Strata, hBits and PropertyShare.
- ▶ Few are experimenting with the usage of blockchain-enabled legal ownership of property (e.g., RealX)

Digital gold

- ▶ Products such as Gold ETF, mutual funds, bonds (SGB), and futures are highly accessible and enabled by players like Groww, Zerodha, and ET Money.
- ▶ Banks are also providing digital gold and MFs through their platform, e.g., HDFC's Digi gold

P2P

- ▶ Traction for P2P players, like LenDenclub and Faircent, is driven by attractive investment returns offered to the retail investor

Democratization of PE

- ▶ Startup investment platforms, like Tyke, LetsVenture, and AngelList India, provide an online platform that lets people invest in private startups.

Other: Commercial real estate, inventory finance, leases

- ▶ A curated offering of low-friction and greater ROI investment options in commercial real estate, inventory financing, and inventory (furniture, vehicles, and equipment) financing, e.g., Grip

Challenges

From a consumer adoption standpoint, India is still at a very early stage of the FinTech transition for alternative investment. From the ultra HNIs to the mass, the trickle-down effect has begun only in the last couple of years. There is still a **huge knowledge gap** that exists among consumers about the products used and the risks and challenges associated with the same. **Data privacy** concerns of investors and cyber-attack challenges associated with the digital space will remain pertinent.

Next steps:

- ▶ India's HNWI and UNHWI are still underserved. Wealth management firms currently manage only 9% of the HNI wealth in India. To put things in perspective, note that in North America, this is at 75%, in LatAm, it is 60%, and in China, it is 20%, according to IIFLWAM and HSIE research. With \$2.8 trillion HNI wealth out there, this is a huge untapped opportunity.¹¹¹
- ▶ Discount brokers are getting the AMC licenses and are likely to target the passive fund investing space. Several FinTech players aiming for similar approval include Bajaj Finserv, Navi Technologies, Samco, Angel One, Old Bridge Capital Management, PB FinTech, and Helios Capital Management PTE
- ▶ The underlying wealth and capital markets infrastructure and ecosystem have witnessed immense growth with collaborations between transfer and reporting agencies, such as consolidated account statements for mutual fund and equity demat accounts. Customers and FinTech companies would benefit from their data consolidation and reporting infrastructure
- ▶ There is a significant scope to focus on a new investor base from tier 2 and beyond cities. Financial literacy, vernacular support, and affordable solutions will probably play a role here
- ▶ Retail investors are looking for diversification and alternative investments have emerged as a viable option in the wake of a prolonged poor performance of the equities market in 2022.
- ▶ Fractionalization of real estate and the use of smart contracts in legal ownership transfers are largely gray regulatory areas that could benefit from clear policies and expert advisory

¹⁰⁹<https://economictimes.indiatimes.com/markets/stocks/news/discount-broking-pioneer-zerodha-says-concept-no-longer-relevant/articleshow/84419978.cms?from=mdr>
¹¹⁰<https://economictimes.indiatimes.com/tech/technology/indian-investment-in-cryptocurrency-hits-10-billion-this-week/articleshow/87446976.cms?from=mdr>

¹¹¹<https://www.motilaloswal.com/site/reports/637159778230770369.pdf>

Digital adoption interview Q&A

Nikhil Aggarwal, Founder & CEO, Grip Invest



Nikhil holds a degree in Economics from Delhi University and an MBA in Finance from FMS. He started his career as part of the consumer banking team at HSBC, looking at strategies to rebuild the mortgage business post the 2008 global financial crisis. Nikhil subsequently joined Morgan Stanley's investment banking team in 2010 advising tech, real estate, and automotive clients on capital markets and M&A strategy. Over a six-year stint, Nikhil advised on 25 completed transactions, helping clients with over \$5 billion in the capital.

In 2016, Nikhil co-founded Chalo, one of India's largest mobility ventures. Today, Chalo operates in 30 cities and facilitates over a billion passenger trips in the intra-city every year. In 2020, he joined the World Bank as a public policy consultant and focused on transportation and electric vehicles.

Nikhil founded Grip in 2020 as his second venture. Today, Grip is India's leading investment platform for non-market linked alternative assets and has enabled INR 350 Crore in investments over the last two years.

Q How is the Indian investment landscape and market doing as compared to the global peers like the mature markets of the US, the UK, and China?

A A regulatory perspective is one of the most important ways to look at the Indian investment landscape and market. Alternative investments market is at a growth stage, where the regulations are being updated and reviewed. India still has a long way to go to reach a more mature alternative investment market. SEBI has taken steps to look at the regulatory aspect of the industry. There is a positive intention to groom this place's growth from an axis of alternate capital and provide an alternative investment opportunity for individuals. Mature markets have already put forth some of these guidelines and bookings and are witnessing greater attention and acceptance from both regulators and the public. While there have been considerate efforts by SEBI in regulating the market, a good amount of work still needs to be done in putting up guidelines and relaxing investor definitions to give better clarity to the investors and encourage participation on alternate investment platforms to create a safer environment for retail investors to participate. It will eventually nudge the investors to expand their portfolios and encourage more companies to enter the alternative investment space.

Q What are some of the factors driving the growth and update in the alternate investment market that has led to a significant customer adoption rate in this field?

A The alternative investment market is seeing very high demand and high-interest level, but it is still in the very early stages of that transition, where we are moving from people who are ultra HNIs to the mass of human segments. But that trickle-down has begun in the last couple of years, especially on account of what is happening macroeconomically. Earlier alternate investment was just a collectible item, but today it is about a need to have it as part of the portfolio. The reality is that with fixed income level, and fixed deposits, we are incurring negative real interest rates. Inflation and fixed deposit rates have fundamentally changed our world. And hence, there is a need to look at a higher yield fixed income. Companies that are accessing private capital markets are more than public capital markets that are coming up with their IPOs, a retail investor needs to search for these alternatives. Therefore, being in a fundamentally different environment, the portfolios are not just about being cool but inherently need to rent some of these options that yield greater profits.

P2P lending, lease finance, and startup equity are the three asset classes that have seen the most amount of interest from investors. There is another category i.e., commercial real estate, but it is not yet being offered. The key driver for this uptake is the need of the people for diversification, alternative investments, fixed income instruments, to beat the inflation rate, and more. Grip has been providing its users with these requirements and making it easier for them to start their journey. KYC's online payments are reducing the friction to invest. It also helps to access some of these high-growth companies that are not able to participate in a public market situation. On an average, people make seven investments in a year, out of which the second investment is 30% higher than the first. An average user's portfolio on Grip in a year is Rs 4 lakhs. Therefore, people are seriously looking to allocate portfolios at Grip because it is something that they require from a healthier and most sustainable portfolio construction.

Q What are the revenue-making channels for alternative investment platforms and how do they differ from traditional platforms and what is sustainability like for these platforms?

A The nature of the products being offered by alternative investment platforms makes them less easily accessible. There is a much higher commission margin or fee that the platforms make on these products, when compared to traditional product offerings like mutual funds, fixed deposits, stocks, and gold. The commission that platforms that offer alternative investment options make is 300 to 400 % higher than the platforms that offer traditional investment products. This makes the business highly viable since the revenue is much stronger and you can build a profitable business with much fewer users who are transacting larger values and giving more commissions. Hence, it can be said that the path to breaking even partly to profitability is much more attractive today for some of the alternative investment platforms when compared to the traditional platforms. Another benefit that these platforms offer is product differentiation. Product differentiation itself exists and hence, it helps them in making more revenue by offering it.

Q Are there any B2B solutions picking up on the alternative investment side, like cap table management, asset enablers, etc.?

A A lot of companies are using the Cap table management solution. Trica's equity platform and Qapita are some examples. Grip's equity and ESOPs are also managed by one of these platforms. For the services that these platforms are providing, there is still a lack of awareness that needs to be addressed. But as more and more companies buy back ESOP pools and there is wealth creation at a broader level, it will encourage more investment in the alternative investment space.

Q Are banks and FIs actively exploring partnerships with alternative investment platforms?

A Banks and FIs are partnering with alternative platforms. Banks and financial institutions, like Yes Bank and IIFL, have invested in Venture Catalyst and Mumbai Angels respectively. A large set of FIs and banks are speaking with alternative investment platforms to understand what these partnerships would mean and how some of the products that these platforms offer become available to users. Banks are going to play a crucial role in creating distribution for alternative investment products and there is a lot of partnership potential available between some of the new-age platforms and the banking system.

Q With more embedded partnerships with FIs and banks, do you see different categories of products being generated and what would they look like?

A There will be products launched not only with banks and FIs but even with a different set of users on different platforms. For example, a neobank would also want to make alternative investments available to its users, but the products that would be made available on its platform would have a slightly different wrapper on them. A digital wealth advisor would also want to make alternative investments available, and the products they may choose during their risk-return tenure, would be different from what a bank would offer. There are going to be product variations across platforms for different user segments.

Q Do you see the massive boom of retail investors coming into the Indian market and has COVID-19 created a push for the adoption of alternative investment platforms?

A The pandemic played an important role in pushing the alternative investment industry as people had more time and money to invest and they were seeing that interest rates were coming down, so it created a favorable situation for the industry. The industry is going to grow at a steady rate with more players educating users and creating awareness. There is still a lot of work to be done on the regulatory side. Platforms need to become stronger, card rails for retail investors need to become better, and once this is achieved, it will help the alternative investment industry to grow at a much faster pace.

Q What are the challenges in the alternative investment space and what can a policy maker do to take a positive nudge and enable innovation in this space?

A One of the challenges for the industry is to educate the user correctly about what they are getting into. Being on a digital platform is both easy and difficult as information can be provided to users but we cannot be sure if the user goes through tons of information. Hence, it becomes a very important job for these platforms to educate the users about the products and make them understand the risks associated with such investments.

From a regulatory point of view, SEBI's Cat-1 regulations and the P2P regulations are both incredibly enabling regulations. Regulations that allow users to invest and get exposure to such platforms can help the industry in attracting more users. As long as regulators work in this direction, and they work with these platforms, the alternative investment space can improve and grow sustainably.

Digital adoption interview Q&A Karan Mehra, co-founder & CEO, Tyke



Karan is passionate to open doors to the retail investor community for startups and help them become world-class companies. The idea is to grow together with the help of the community and not be restricted by a high minimum threshold of investment. At the core resides the 'startups for startups' ethos with a systematic and fast approach to early-stage investing.

The platform leverages technology and the community to source, assess and scale high potential startups. I aspire to be a pioneer of the digitalized and democratic startup investing ecosystem, where investment is made easy, simple and accessible for all, from just INR 5000 onwards.

Q How has India's alternative investment market shaped vis-à-vis global counterparts?

A India's alternate investment market has started growing as a delayed reaction to the growth that has been seen in the global counterparts of Europe and North America.

It is reasonable to claim that we have advanced ten years later, in comparison to our international counterparts.

The way the Indian alternative investment market has typically developed is an increase in knowledge, know-how and risk-taking from consumers. This is primarily because people are looking at alternate investments markets to invest in India. After all, the growth in capital markets has decreased from an ROI point of view.

Earlier, only HNIs and family offices had access to invest in these assets. However, in recent years, first-time investors and those with smaller cheque sizes have dramatically increased their participation in equity and debt investments in enterprises. At the moment, India's selection of alternative investment possibilities is highly varied and include fixed return asset class and startup investments as public favorites.

Q Among a variety of emerging investment options for retail customers, where do you see the most customer adoption?

A We have seen an increase in 'high risk, high return' as a thesis favored by consumers. One of the opportunities available on Tyke Invest are CSOPs (Community Stock Option Pool), to invest in early-age startups.

According to Inc42's unicorn tracker, in 2021 alone, 86 Unicorn startups were produced in India. Indian startups raised \$42 B across 1,583 deals in 2021. The march continued in 2022, as India added 20 more unicorns to the club.

The rise in the growth of Indian startups caught the attention of retail investors, in which some of them became angel investors in the process. But this would mean only the top 1% of the income bracket. There were others who were looking forward to becoming a part of the success story of early-stage companies with smaller cheques in hand, either through equity or debt. They were aware of the risk involved with investing in companies, where the rewards with respect to that risk are disproportionate when compared to the capital markets.

We identified the gap in the market and introduced Tyke Invest where anyone can invest in early-stage companies starting at INR 5,000 and become a part of their growth story.

Q What would be the key drivers of growth in India's alternative investment market?

A India has not seen a better time when investors are open to experimenting with new investment products. As people are seeking some alternate options already, the key drivers of growth would be:

- ▶ **Creating Awareness:** There are only concentrated investors who are aware of the feasibility of startup investing. There are a lot of markets which are yet to hear such possibility. Educating people regarding the investing and engagement process might be the first step toward letting people know that they can invest even with the tiniest amount.
- ▶ **Higher Returns:** One of the top factors for investors to choose their instrument is liquidity. We can drive growth if we find ways in which the liquidity can be increased in these markets and reduce the tenure of investments and make them liquid enough.
- ▶ **Building Trust:** Most important factor is trust for an investor. Favorable regulatory conditions encouraging investments in private assets will be a great push for startup investing and for another alternative investment market.

Q What are the key trends in alternate investment space and how is that helping in gaining better user engagement and loyalty?ionate when compared to the capital markets.

A ▶ We are seeing consumers build diversified portfolios. Instead of investing the majority of the money in one or two companies, they are typically looking to invest in different assets over varied sectors reducing risk and volatility.

► An increase in community-led growth to invest in alternative investment classes is seen actively. It means that users are actively endorsing these opportunities over more conventional ones among their peers and persuading their current network to embrace the new financial instruments. As a result, these businesses have a very high referral rate.

► Adoption or broad coverage of products and services offered by startups has elevated it to the status, where it has reached the conversation of each household.

Q What are the regulatory and compliance challenges in the alternative investment space and how is it impacting the growth of this segment?

A Transparent guidelines will allow widespread trust and adoption of such investment opportunities.

Overall, WealthTech companies have innovated for the underserved financial needs through a strong and supportive ecosystem, which will continue to grow during this decade. Regulatory sandboxes will become a more common practice as digital adoption keeps increasing.

Regulation and compliance as Achilles' heel

FinTech is broadly an omnibus term used to describe emerging technological innovations in the financial services sector, with an ever-increasing reliance on information technology.

FinTech companies can facilitate digital transactions and help authorities prevent digital fraud through better authentication and identity verification technologies. Accurate and timely reporting is the backbone of governance and RegTechs have been helping industry players become better at this. However, recent incidents of poor governance and failure at proper KYC processes have indicated a fault line in various growth-focused FinTech companies and have drawn regulatory scrutiny.

Compliance risk vs. growth trade-off: In recent years, the collaboration of FinTech companies with banks/ NBFCs and the enablement of digital lending have played an instrumental role in furthering RBI's vision of financial inclusion and revolutionized last mile lending. Some of the reasons that can be attributed to this reach by FinTech companies are the integration of technology in providing financial services, penetration of smartphones, widespread usage of the internet, etc. Furthermore, for FinTech companies, the regulations have been light touch so far (in certain cases indirect in nature) as compared to the regulated entities in the financial services sector. With regulatory arbitrage now being plugged in slowly, it is expected that there may be an impact on the growth and/ or profitability prospects for the FinTech sector in India.

Key regulatory developments impacting the FinTech sector

Press Release on 'Recommendations of the Working group on Digital Lending – Implementation': The regulators acknowledge the evolution of FinTech-led innovation in providing access to financial products/ services, and that, digital lending has the potential to make access to financial products/ services more fair, efficient, and inclusive. It also recognizes that the penetration of digital methods in the financial sector is a welcome development. While the regulators consider the benefits, it also understands that there may be certain downside risks that may have been interwoven in such endeavors.

There have been reports about individuals/ small businesses falling prey to the growing number of unauthorized digital lending platforms/ mobile apps with promises of getting loans in a quick and hassle-free manner. These reports, also referred to excessive rates of interest and additional hidden charges, are being demanded from borrowers for the adoption of unacceptable and high-handed recovery methods, and misuse of agreements to access data on the mobile phones of the borrowers. Given the same, the Reserve Bank of India (RBI) cautioned the public at large against unauthorized digital lending platforms/ mobile applications and provided a web portal to register complaints against such platforms/ applications.

Further, to adopt a balanced approach, the RBI constituted a Working Group (WG) to study and examine the practices, etc., to ensure that the regulatory framework supports innovation while ensuring data security, privacy, confidentiality, and consumer protection. The report of the WG on digital lending, including lending through online platforms and mobile apps (report on digital lending) was published for public comments to be provided by 31 December 2021.

Considering the inputs provided by different stakeholders, the RBI issued a press release dated 10 August 2022 viz. Recommendations of the Working group on Digital Lending – Implementation. As per the said press release, the RBI has firmed up a regulatory framework to support orderly growth of credit delivery through digital lending methods, while mitigating the regulatory concerns.

The approach adopted by the RBI toward the regulatory framework for digital lending seems to suggest that since the RBI has regulatory authority to govern the Regulated Entities (RE), the future course of action on the recommendations of the Working Group is focused on regulations to be adhered to by the RE, their Lending Service Providers (LSP), Digital Lending App (DLA) of REs and LSPs. Through the press release, the RBI has recognized the impact of digital lending and FinTech companies being considered as LSPs. The LSP has been defined as:

An agent of a RE who carries out for a fee from the RE, one or more of the lender's functions in customer acquisition, underwriting support, pricing support, disbursement, servicing, monitoring, collection, and recovery of a specific loan or loan portfolio.

One of the functions that the LSPs may provide refers to 'underwriting support' and hence, it may be construed that the onus of credit underwriting is with the REs and the LSP may be permitted to only provide support.

The recommendations (including suggestions made by the Working Group) have been classified as under:

- Recommendations are accepted for immediate implementation and the consequent regulatory stance.
- Recommendations, though accepted in principle, require further examination; and
- Recommendations that require wider engagement with the Government of India and other stakeholders because of the technical complexities, setting up of institutional mechanisms, and legislative interventions.

The future course of action based on the recommendations, largely impacting FinTech companies includes (a) elimination of pass-through account/ pool account provided by certain FinTech companies, which helped REs in disbursements, collections, etc.; (b) payment of any fees to the LSPs, to be paid by the lender and cannot be directly from the borrower; (c) data collection to be on a need basis and with explicit consent, etc. Further, there is still a lack of clarity on issues, such as the permissibility of providing deferred payments and the provision of First Loss Default Guarantee (FLDG) by FinTech companies, which has been discussed later.

- ▶ **Master Direction regarding Credit Cards:** The RBI had issued 'Master Direction – Credit Card and Debit Card – Issuance and Conduct Directions, 2022' (Credit Card Master Directions), effective from 1 July 2022. As per the credit card master directions, the role of the co-branding partner entity shall be limited to marketing/ distribution of the cards, and it shall not have access to information relating to transactions undertaken through the co-branded card. Further, post-issuance of the card, the co-branding partner shall not be involved in any of the processes or controls relating to the co-branded card, except for being the initial point of contact in case of grievances.

This may impact business models and restrict the roles of FinTech companies in such arrangements to a limited extent.

- ▶ **Restriction on loading of credit lines through Pre-paid Payment Instrument (PPI):** The RBI issued a letter concerning PPIs, which stated that loading of PPIs from credit lines is not permissible.

The letter issued by the RBI seems to impact business models, where disbursement loans were being made in the PPIs of the customers based on partnerships of FinTech companies, banks/ NBFCs, and PPI issuers. Further, with the issue of the press release dated 10 August 2022, as discussed above, the current stance of the RBI continues with not permitting disbursal of loans into full KYC-compliant PPIs.



Instances of fraud and non-compliance as reported in the media:

- ▶ **Board and C-suite frauds:** As per recent market reports, a major PayTech player's board has found fraudulent transactions, including payments to non-existent vendors as well as irregularities in invoices, being produced to substantiate spending.
- ▶ **Fraudulent and unlicensed businesses:** The Enforcement Directorate has been conducting money laundering investigations against several Indian NBFCs and their FinTech partners for predatory lending practices in violation of the RBI guidelines and by using tele-callers who misuse personal data and use abusive language to extort high-interest rates from the loan takers. Since various FinTech companies, which were backed by companies sharing a land border with India, could not get an NBFC license from RBI for carrying lending business, they devised a route with defunct NBFCs to piggyback on their license. After the criminal investigation began, many of these FinTech apps shut shop and diverted away the huge profits earned using the above modus operandi.
- ▶ **Circumventing compliance:** As per the report on digital lending, there has been a spike in lending applications that are available for Indian android users alone and ~1,100 such lending apps are seen being available, out of which 600 were found to be illegal. Further, the RBI has recently canceled the certificate of registration of NBFCs on account of violation of RBI guidelines on Outsourcing and Fair Practices Code in their digital lending operations undertaken through third-party apps for charging excessive interest and undue harassment of customers for recovery of the loan.
- ▶ **Misrepresentation of financial and operational performance:** Based on a recent newspaper article, a renowned Indian payment player was found routing the company's money through human resources consultants known to each other. Other serious accusations included inflating the value of transactions of various merchants through fake invoicing.

Sector's struggle with regulatory compliance:

The regulators (RBI, IRDAI, and SEBI) are actively supporting innovation through enablers, such as the regulatory sandbox, the launch of innovative products such as offline digital payments, and the ability for FinTech companies to apply for a mutual fund, banking, and insurance licenses, demonstrating India's favorable regulatory environment for FinTech startups. However, for instance, as discussed earlier, the latest RBI norm on the disallowance of loading credit through PPI is more likely to benefit banks and impact FinTech companies by allowing banks to speed up card acquisition while reducing competition. Also, FinTech firms are likely to face more competition in the coming months and years.

As per market analysis, several FinTech players who were working on this model seem to be affected. It is also understood that representations have been filed with the RBI for providing a regulated approach for conducting loading of credit through PPIs by partnering with banks/NBFCs and not completely disallowing the same.

Additionally, the new age FinTech companies having foreign investments also face challenges in obtaining licenses from the regulators on account of strict assessment of the fit and proper criteria which, inter alia, includes assessment of investments from non-compliant FATF jurisdictions, investors not being from listed or regulated/ supervised by financial sector regulators, etc.

Regulatory uncertainties:

- ▶ **Digital banks:** As policymakers scale up efforts, a fully digital banking licensing model is likely to emerge in India. India's neo-banking landscape is currently dominated by a partnership model approach where neo-banks are not licensed and must partner with a financial institution to roll out their products and services. NITI Aayog, the apex public policy think tank of the Government of India, has released a report on digital banks (Digital Bank: A Proposal for Licensing & Regulatory Regime for India), wherein it has made a case and offered a template and roadmap for a licensing and regulatory regime for digital banks. It focuses on avoiding any regulatory or policy arbitrage and offers a level playing field to incumbents as well as competitors. The report on digital banks provides a calibrated approach to issuing a restricted license, enlistment in a regulatory sandbox, and thereafter issuance of a full-scale license to operate as a digital bank, subject to conditions.
- ▶ **Regulatory gray areas around cryptocurrency:** On 29 January 2021, the Government of India announced that it will be introducing the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021. However, the said bill has not yet been issued. Recently, the Government of India released a statement that they are looking to hold more discussions with stakeholders to firm up a view on the policy/ regulations about cryptocurrencies.

The Ministry of Corporate Affairs (MCA) has amended Schedule III of the Companies Act, 2013 requiring companies to disclose profit or loss on transactions involving cryptocurrency or virtual currency and the amount of holding. The details of deposits or advances taken from any person for trading or investing in cryptocurrency or virtual currency are also to be provided. The said amendment is applicable with effect from 1 April 2021.

Further, there have been some regulations/ caution notices prescribed concerning cryptocurrencies, such as:

- ▶ As part of the Budget 2022 presented by the Finance Minister, provisions for taxation of virtual digital assets (which includes crypto-currencies) have been introduced, however, there continue to be ambiguities around these provisions
- ▶ The RBI vide a notification in May 2021, inter alia, stated that banks, etc., may, continue to carry out customer due diligence processes in line with regulations governing standards for KYC, AML, CFT, and obligations of regulated entities under Prevention of Money Laundering Act, 2002, in addition to ensuring compliance with relevant provisions under Foreign Exchange Management Act (FEMA) for customers dealing in virtual currencies concerning overseas remittances.
- ▶ **Buy Now Pay Later (BNPL):** The Press Release dated 10 August 2022¹¹², inter alia, prescribes that extension of new digital lending products by Res, over a merchant platform involving the short term, unsecured/ secured credits, or deferred payments, are required to be reported to credit bureaus by the REs. Further, it has been stipulated that the REs need to ensure that LSPs associated with deferred payment credit products are required to abide by the extant outsourcing norms prescribed by the RBI and the contents of the said Press Release.
- ▶ This recommendation of reporting to the credit bureaus for new digital lending products, including BNPL, is a welcome development that should help in assessing the credit worthiness of the borrower. Further, the RBI seems to indicate that REs can provide new digital lending products, including BNPL/ deferred payments, etc. However, the permissibility of providing deferred payment products by FinTech companies is still not clear.
- ▶ **First Loss Deposit Guarantee (FLDG) restrictions:** In recent years, the practice of entering into FLDG arrangements by FinTech companies/ digital lending apps, etc. (unregulated entities) with Banks/ NBFCs (regulated entities) had become a common practice. The report on digital lending referred to such arrangements as a synthetic structure enabling unregulated entities to lend without complying with prudential norms through credit risk-sharing arrangements. Given the same, the recommendation of the WG was to prohibit REs from entering into arrangements involving synthetic structures, such as FLDG with unregulated entities. In the press release dated 10 August 2022 as discussed above, the RBI has stated that the recommendation about FLDG is under examination and the same has not been covered under immediate implementation. However, it has stated that, in the interim, where the Res are offering financial products with a guarantee being provided by a third party on default of the loan, the Res need to comply with the Master Direction - Reserve Bank of India (Securitization of Standard Assets) Directions, 2021 dated 24 September 2021 (Securitization Directions).

The reference has been made to any third party that provides a guarantee for default of loan, which may include both regulated entities and unregulated entities. Where the FLDG arrangement is between two regulated entities, they shall be required to follow provisions prescribed in the securitization directions. This may have an impact on requirements of minimum retention, a limit on the exposure in the securitization structure, etc.

Although, in the case of FLDG arrangements between an unregulated entity and a regulated entity, which largely, is the case of FinTech companies providing FLDG to banks/ NBFCs, there seem to be certain ambiguities and upon issuance of the detailed guidelines, the same may hopefully be clarified.

- ▶ **Increasing cyber risks and compliance:** To increase cyber awareness and cybersecurity awareness, an RBI IT unit - 'Reserve Bank Information Technology Pvt Ltd (ReBIT)' has been set up for IT and cybersecurity needs and to ensure the cyber resilience of Indian banking.

FinTech companies need a sharper focus on governance

It is challenging for regulators to catch up with the fast-mutating FinTech landscape and there is a need for regulators to adapt for FinTech companies to be able to absorb innovation. FinTech companies do not work in silos now and their growth depends on interoperability and ecosystem partnerships with other bank and non-bank (FinTech) players. Financial services is a business of customers' trust in the organization and poor governance and compliance record are likely to filter out such players from the list of potential ecosystem partners in the due diligence process itself.

With a light/ indirect touch of regulatory interventions, the FinTech industry has established its roots in the country. Now, as we step toward the maturity and real impact through compliant businesses, it is imperative for FinTech companies to closely monitor and navigate through the regulatory, compliance, and governance risks. As we all know, compliance is costly, but non-compliance is costlier.

For the regulators, it is important to maintain the balance and create a level playing field for innovators so that compliance does not become a bottleneck for the flourishing FinTech industry, and the interest of the consumer and economy

¹¹²https://www.rbi.org.in/scripts/FS_PressRelease.aspx?prid=54187&fn=2

Outlook: Future growth trajectory looks promising despite the increasing regulatory oversight

FinTech funding is likely to remain harder for some time, with investors putting more scrutiny on business plans, growth, and team setup, which would also impact the valuations. The regulatory whip will have a prudent impact on Indian BNPL. Also, depending on interest rate development, BNPL and other cash advance-based business models may mimic the global trend and struggle in India as well. Crypto is currently suffering from the crash of cryptocurrency rates and investor confidence due to tax liabilities. But from the underlying technology point of view, tokenization of the capital market infrastructure has started in **global markets**, and it holds the potential to be a soaring area going forward regardless of the exchange rates of BTC and ETH. However, we also note that significant funds are still available that are looking for investments to create yields. The market might see a slowdown stretching across 2022, but in the mid-to-long term, analysts expect most areas of FinTech to recover over the coming months.¹¹³

1 A collaborative approach between banks and FinTech in India

Banks have superior funding franchises, arguably more underwriting expertise, and a widespread distribution/collection network (which is also becoming a lot more digital). FinTech companies have better technology capabilities, user interfaces, and innovative solutions. In our view, both banks and FinTech companies have realized the advantage of each other and have come together to offer comprehensive solutions. We note that some FinTech companies are doing a lot of these activities on their own, but banks have enough FinTech companies to tie up with them and offer similar products.

2 Fixing digital lending before it breaks

Regulations in India have proposed lending to be done via regulated entities. The working group also proposed to ban credit enhancement features (such as FLDG) provided by some loan service providers, as they are taking credit risks without maintaining regulatory capital. FinTech companies will therefore seek a non-bank license to lend in India. Prepaid loading by credit lines is not permitted now, and non-compliance would attract penalties. This has direct implications for FinTech leaders in this segment (including BNPL). This was a large and fast-growing segment in the ecosystem with many unicorns and soonicorns that are now reworking their strategy.

¹¹³<https://www.wealthbriefing.com/html/article.php?id=194552>

3 Account aggregator system in play

The government has also directed all public sector banks (PSBs) to onboard the account aggregator system by the end of July. The central government's account aggregator system is an undertaking to ease the access to credit and improve credit delivery. Much like UPI with payments, the account aggregator system will help streamline the lending sector.

The account aggregator system is expected to reduce the time it takes to verify customer documents, while a user has greater control over their data.

4 The collaborative approach is the key

FinTech industry's technological prowess and innovative business models have the potential for further value addition and growth. For instance, by working in tandem with the government, FinTech companies can play an important role in expanding the reach of financial services, operationalizing measures undertaken to solve financial inclusion challenges, and providing a bundled portfolio of necessary financial services.

A greater potential is unlocked with FinTech and traditional players working together. Services ranging from opening bank accounts for immigrants, facilitated via innovative onboarding procedures, to providing instant credit facilities to MSMEs not based on traditional methods of underwriting, could assist in realizing the larger financial inclusion vision. Banks have superior funding franchises, more underwriting experience, if not the innovative alternate underwriting methods, and a widespread distribution/collection network that is quickly getting digital or hybrid. FinTech players have better technology capabilities, user interfaces, and innovative solutions. In our view, both banks and FinTech companies have realized the advantage of each other and have come together to offer comprehensive solutions. We note that some FinTech players are doing a lot of these activities on their own, yet banks have enough FinTech companies to tie up with them and offer similar products.

5 Evolution of tech architecture

India has a differentiated tech architecture that is built by government/regulators in collaboration with the banks. The government and central bank have been focused on rapidly formalizing and making the India's economy inclusive. Data is becoming even more democratized as various other initiatives like Digi-locker and account aggregators have been put in place. These initiatives have created superior tech architecture that is openly available and reduced barriers to customer acquisition and data availability among various players.

6 The starting point for banks is relatively more advantageous than in other countries

Indian private banks have very strong retail/SME franchises and have invested in delivering various financial services digitally. As of now, not all will be able to match the user interface/customer experience of FinTech, but they have made significant progress in that direction and will improve sharply over the next three years. We believe the not-so-agile lenders would be the most disadvantaged over the medium term.

7 Scaling-up remains a challenge for FinTech companies

Large FinTech companies have built strong customer engagement (much higher than incumbent banks) and leveraged their technology capabilities well to deliver fast and convenient solutions around various financial services. That said, not many FinTech companies have been able to scale up significantly with strong profitability so far – perhaps a bit early to make a final determination. Moreover, there has been a significant increase in competitive intensity with multiple FinTech companies offering similar product solutions and many willing to tie up with incumbents rather than going on their own to disrupt them.

8 Neobanks are here to stay

Barring recent regulatory hiccups around using PPI licenses, neobanks have successfully created an ecosystem of products and services using industry partnerships. Neobanks are gaining momentum and have a significant potential to carve out their place in the banking and financial services arena. However, their operational models have yet to show sustained profitability. That said, rapid growth in the number of customers served by some of these neobanks across retail and SME segments paints a promising picture. Key attributes and offerings, such as accessibility, cost-effectiveness, access to financial and non-financial functionalities under one platform, and customer-centric approaches, are some of the factors driving success. Neobanks' agility to build niche solutions focused on specific groups of customers makes them dynamic in the larger financial services ecosystem.

9 Focus on customer ownership and the ability to build underwriting capabilities

Moreover, we need to see whether banks can improve on their technology capabilities. Some of these factors would drive whether the collaborative effort would sustain or turn more aggressive towards each other over the long run (>three to five years)

10 Indians playing the role of tech and idea exporter to the world

India is making a host of its e-governance tools – including the Unified Payments Interface (UPI) and Aadhaar identity service – available to other countries via open APIs.

11 Talent exodus from incumbents to FinTech companies

Big traditional financial services players and technology giants have realized an exodus of their highly skilled employees toward FinTech startups. FinTech companies have managed to attract and retain the best talent from technology, professional services, and FS players by offering higher pay and flexible work styles. For banks, it would put additional pressure to find the right skill-set and retain talent to ensure they can deliver on their digital and ecosystem strategies. This is likely to be even harder for public banks considering their hiring methods.

Digital adoption interview Q&A

Hasina Chhil, Partner, Tax and Regulatory Services, Financial Services



Hasina has more than 18 years of experience in the financial services and banking industry. Over the years, she has gained experience in advising and assisting financial services clients on a range of tax and regulatory issues. She is a qualified Chartered Accountant and holds a bachelor's degree in Commerce.

Hasina has worked on a wide range of assignments, including inbound investment structuring, tax compliance, advisory services to banks and other financial services companies, fund structuring, etc.

Hasina has assisted in the setting up of regulated entities, such as NBFCs, small finance banks, payments banks, universal banks, payment system operators, stockbrokers, corporate agents, etc., and also advised on tax implications and regulatory matters.

Q It is highly debated whether the regulator is a friend of FinTech or a foe. What are your thoughts?

A India has emerged as one of the largest payments economies in the world, and the regulator is keen to continue to significantly grow the lending ecosystem and recognizes that the nimbleness of the Fintech companies would be key to achieving this goal. FinTech companies have been one of the key contributors to the regulator's vision of a cashless society, and financial inclusion, and have revolutionized last mile lending.

While the regulators acknowledge the evolution of FinTech-led innovation in providing access to financial products/ services and their potential in making them more accessible, efficient, and inclusive, they also recognize that there may be certain downside risks built in such endeavors.

Globally as well as in India, with the unprecedented growth of the FinTech sector, there have been certain incidents of misgovernance and mismanagement, excessive rates of interest and additional hidden charges being demanded from borrowers, misuse of agreements to access data, circumvention of compliances, etc. This has drawn the regulator's eye.

In light of the above background and given the significant influence of FinTech companies on the overall financial sector, the gradual regulatory intervention was anticipated for a balanced approach to ensure that the regulatory framework supports innovation, while ensuring data security, privacy, confidentiality, consumer protection, and confidence.

Q Should FinTech companies expect increasing regulatory oversight as they scale up and play a larger role in the economy?

A It is well known that until now, the regulations for FinTech companies have been light touch/ indirect. Having said that, recent developments in regulations in terms of digital lending seem to suggest that since the regulators currently have authority only to supervise/ regulate the regulated entities, the regulatory oversight as far as the RBI is concerned over FinTech companies is likely to continue to be through the regulated entities (i.e., indirectly), albeit, in an increased manner.

FinTech companies offer products/ services in tie-ups with regulated entities being banks, NBFCs, PPI issuers, etc. Thus, FinTech companies act as an extension of these regulated entities for efficiently providing products and services with the use of technology. In doing so, they get access to the customer data, funds, etc., and thus appear to attract higher regulatory oversight as they scale up.

Having said that, the regulators (RBI, IRDAI, and SEBI) are also actively supporting innovation through enablers, such as the regulatory sandbox. The launch of innovative products through the regulatory sandbox demonstrates India's favorable regulatory environment for FinTech startups.

Q What are the issues that FinTech firms are facing and what are their plans for tackling these challenges, especially in the digital lending space?

A It is evident, that several FinTech players have been impacted by recently issued regulations such as (a) disallowance on loading of credit through pre-paid payments instruments; (b) elimination of passthrough accounts for disbursements and repayments of loans; (c) uncertainty around permissibility of FLDG; (d) limited role of FinTech companies in co-branded credit card arrangements, etc.

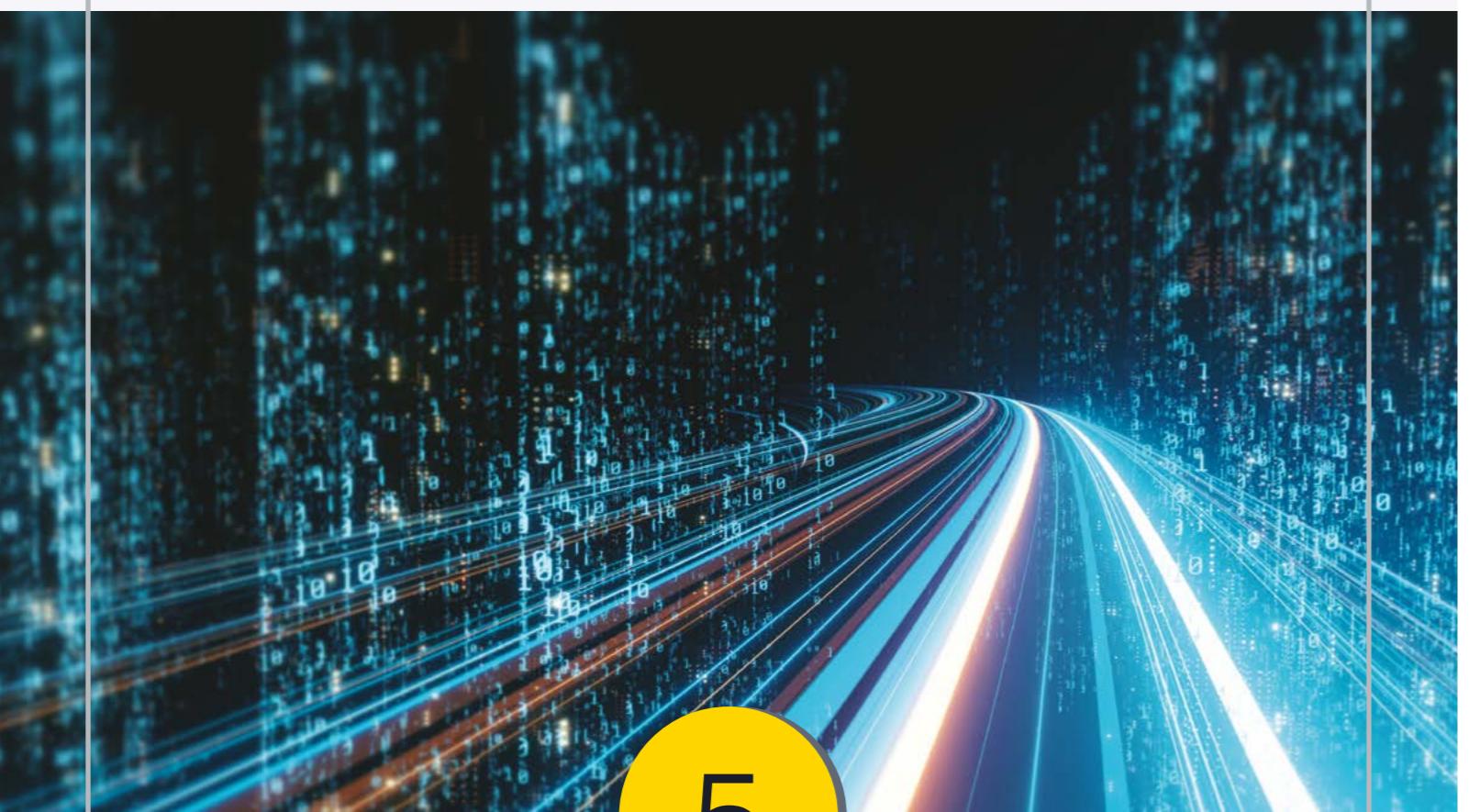
The recent regulatory developments specifically concerning digital lending, on a positive note, have recognized FinTech companies as Lending Service Providers and have provided a regulatory validation for the FinTech companies to design, provide their services and align business models, in line with the regulatory framework prescribed.

While there are ambiguities/ uncertainties in some of the recent regulatory developments, the stance of the regulators is likely to be clarified basis detailed regulation/ suitable clarifications.

The FinTech sector is evolving at a dynamic pace and would need continuous discussions with regulators through various industry bodies to allow innovative products and services. Further, the likelihood of the setting up of self-regulatory organization, covering the digital lending ecosystem, is likely to strengthen the representation of the FinTech sector with the regulator.

The way forward

5



1 Digital adoption will drive financial inclusion and education

Financial Inclusion and education will be two of the driving factors for financial services. Digitalization and the increased presence of FinTech aim to reach the underserved population and provide financial services. After inclusion and literacy, the very important next step is improving financial health. Financial education to assist in choosing the appropriate financial services or providing hyper-personalized products would be the natural progression toward improving the financial health of the population.

2 India to transform the global payment landscape

As RBI and NPCI guide the future of the Indian payments landscape, major initiatives like credit on UPI and card on file tokenization are likely to have a far-reaching impact on the digital payments and credit space. As RBI and NPCI looked to build on customer data privacy and open banking, the crowded private fintech payments arena has seen strong players emerge to offer and build financial services ecosystems to achieve profitability. RBI has given the green flag for BBPS to accept inward payments to help NRIs and these are significant steps in the FinTech space. The success of the payments sector has brought the Indian FinTech space into the spotlight internationally with NPCI's ongoing conversation with 30 countries for RuPay and UPI.

3 Bank and FinTech will bet on product hyper-personalization

Incumbent banks have been acquiring a new generation of customers with digital-first platforms. Customer experience is a relevant differentiator in financial services now. Banks and FinTech companies shall build synergic partnerships, where banks can utilize their customer base and regulatory understanding while utilizing FinTech's agility and customer experience to serve innovative and customer-centric products. FinTech companies utilize cutting-edge AI/ML, APIs, and microservices to deliver personalized product offerings that are accessible to all tiers of customers. Use cases in wealth management and advisory and lending underwriting have captured the interest.

Therefore, there has been a notable rise in FinTech partnerships in a short period.

4 Ecosystem business models will evolve

There is a push from financial institutions and banks to create an ecosystem around their customers through a build, buy, or partner framework. Ecosystem business models produce co-created products and services, marketing to a common set of customers generating more value and providing their customers with the fullest customer experience.

Embedded finance enables the distribution of financial products for lending, insurance, and identity validations to be embedded into customer journeys of non-financial services. The use of APIs allows a non-financial entity to integrate financial services and will allow customers to use a third-party website to avail of financial services.

5 Potential for the next phase of growth in InsurTech

Indians barely invested in insurance in the past. Health insurance marketplaces and fully digital insurance portals that support comparison, claims, and support have the potential to bring insurance to tier 2 and tier 3 cities in India. Technology-enabled customization and transparency are set to reduce fear and invoke the need for insurance. Distribution through bundling with other services is expected to be a major source for tapping into customer need for insurance and boosting awareness as well as the sale of insurance products.

6 Evolving regulations focusing on overall growth and building secure markets

The regulatory landscape in India has facilitated FinTech adoption by introducing guidelines and regulations which are participative and iterative—they are adapting and changing with the evolving market scenarios and maintaining a customer-centric approach. While being iterative, the regulations focus on overall growth and building secure markets in the Indian FinTech sector

7 Rise of India FinTech 2.0

The growing maturity of the Indian FinTech ecosystem has coupled aggregation of the digital experience of financial services within one of the biggest marketplaces. This shows confidence and instills trust in overseas markets about the capability of the Indian FinTech sector. Through regulatory and government push, all scheduled banks are live on the account aggregator platform- onboarding 1.1 billion accounts, making it the world's largest open banking ecosystem. This would lead to better personalized and customer-centric products by banks in new market avenues. This could be version 2.0 of the FinTech sector built on top of smart data and consent management architecture. Account aggregator could significantly impact lending and other financial services sector and create the next 'UPI moment' in the FinTech space.

About FinTech Convergence Council (FCC)

Started in the year 2017 as a FinTech committee and converted into a council with its governing board in year 2018. With 70+ members the FCC represents various players in the FinTech, banking, financial services and technology space. Its purpose to aim at being the platform for the financial services ecosystem to deliberate, integrate and lead the development of the FinTech. The council proactively works towards growth of fintech and penetration of financial services to support its national goal of financial inclusion, moving towards a digitally empowered country. Its mission is to identify and build opportunities for collaboration, convergence between the various players in the financial services domain and to grow and drive market expansion.

For more information, visit: <https://www.fintechcouncil.in/>

About EY

In a world that's changing faster than ever, our purpose acts as our 'North Star' guiding more than 300,000 people – providing the context and meaning for the work we do every day. We help digital pioneers fight data piracy; guide governments through cash-flow crises; unlock new medical treatments with data analytics and pursue high-quality audits to build trust in financial markets and business. In other words, working with entrepreneurs, companies, and entire countries to solve their most pressing challenges.

Through our four integrated service lines – Assurance, Consulting, Strategy and Transactions, and Tax – and our deep sector knowledge, we help our clients to capitalize on new opportunities and assess and manage risk to deliver responsible growth. Our high-performing, multidisciplinary teams help them fulfill regulatory requirements, keep investors informed and meet stakeholder needs.

FinTech innovation continues to transform the financial services sector. As it continues to become increasingly accessible and affordable, industry players must rethink their play in the market and think about building financial services for the digital world rather than delivering financial services digitally.

At EY, we work with financial institutions, start-ups, investors, governments, and regulators to help them rethink their role in the financial services ecosystem and execute their strategies. We are deeply embedded in FinTech ecosystems across the globe and offer cutting-edge services which are tailor-made to suit the client's requirements.

We believe a better working world is one where economic growth is sustainable and inclusive. We work continuously to improve the quality of all our services, investing in our people and innovation. And we're proud to work with others – from our clients to wider stakeholders – to use our knowledge, skills, and experience to help fulfill our purpose and create positive change.

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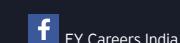
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