Growth of FinTech Unicorns in India: Recent Trends

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Abstract: FinTech is a multi-billion-dollar industry and it has been growing rapidly in India in the last five years and is expected to grow further in the near future. Due to the current situation of pandemic, FinTech companies are leading the way in a world where digital transactions are at an all-time high. According to the National Investment Promotion and Facilitation Agency- "The Indian FinTech market is currently valued at \$31 Bn and is expected to grow to \$84 Bn by 2025, at a CAGR of 22% The current state of the Indian FinTech industry is the result of a unique mix of technical enablers, governmental interventions, and economic prospects, as well as certain additional characteristics exclusive to India. Over 67 percent of India's 2,100+ FinTechs were founded in the last five years. In the quarter of June 2020, 33 new FinTech investment deals worth US\$647.5 million were closed in India, compared to US\$284.9 million in China. Overall, the FinTech market in India is already worth US\$31 billion and is expected to grow to US\$84 billion by 2025. By 2023, the value of FinTech transactions is expected to increase to US\$138 billion, up from US\$66 billion in 2019. In this paper an attempt has been made to explain and analyse the reasons for the growth of FinTech industry, potential challenges and prospects this industry is experiencing in current time period in the Indian context.

Keywords: Financial Innovation, Financial Technology, Digitalization, Hotspot

Introduction

The global financial system took a toll during the financial crisis of 2008. What transpired after that dramatically transformed the banking system, resulting in the development of previously introduced financial institutions known as FinTech.

The term 'FinTech' is an abbreviation for Financial Technology. Broadly it includes a huge range of products, technologies, and business models that are changing the financial services by providing additional benefits and achieving high efficiency in financial transactions. In a narrower sense, it refers to all the start-ups that are disrupting the financial industry landscape from cashless payments to asset management to crowd funding platforms to robotic advisors to virtual currencies. There is a huge power of disruption in the industry and the way we innovate this industry is really changing the whole landscape of the financial industry. As a result of advancement in technology and innovation, the landscape of financial services has changed significantly. FinTech is a multi-billion-dollar industry and it has been growing rapidly in India in the last five years and is expected to grow further in the near future. Due to the current situation of pandemic, FinTech companies are leading the way in a world where digital transactions are at an all-time high. According to the National Investment Promotion and Facilitation Agency- "The Indian FinTech market is currently valued at \$31 Bn and is expected to grow to \$84 Bn by 2025, at a CAGR of 22%." As the number of Unicorn Start-ups (valuation is more than \$1 billion) has crossed 50, FinTech is among the popular sectors with 12 start-ups in the list. Leading FinTech Companies in India include Paytm, Policy bazaar, Mobikwick, Pine Labs, Groww app etc.

In the light of this background, in this paper an attempt has been made to explain and analyse the growth of FinTech industry, reasons for this growth, potential challenges and growth prospects of this industry in the contemporary time period in the Indian context.

Objectives of the Study

In current time period FinTech is considered as a financial institution that predominantly use technological innovation to perform multiple business tasks ragging from the creation of digital money to managing accounts. India constitutes a flourishing market for FinTech companies, driven by a deep smart phone penetration surge that has increased from 53 percent in 2014 to 64 percent in 2018, several FinTech start-ups have received

considerable market shares in different sub categories of the market. In this paper we attempt

- To analyse the growth of the FinTech industry in India during the pandemic period
- To explain various incentives/initiatives started by the government of India in this context
- To find out potential challenges/threats which can be faced by this industry in the future

Research Method

We apply descriptive research design primarily based on secondary data sources. The descriptive research is useful as it is structured in nature and provides a clear direction of information collection. The secondary data have been collected from reports of RBI, KPMG, MEDICI etc. In addition, the data have also been collected from reputed journals, research articles, and news paper articles. After collecting the data, we analyse it empirically in the form of various tables, charts and graphs.

Growth of FinTech:

The Indian financial services sector has started its digital journey and is coming closer to its global peers such in terms of adoption. Various FinTech centres have evolved across the globe, some of them are in U.K, U.S, Israel, Singapore, Sydney, Hong-kong etc. These are acting as a benchmark of FinTech evolution for the emerging markets like India. Table1 provides detailed description about growth of FinTech in different time periods at global level.

Period	1866-1987	1987-2008	2008- Current ¹	
Time Frame	FinTech 1.0	FinTech 2.0	FinTech 3.0	FinTech 3.5
Geography	Global/ Developed	Global / Developed	Developed	Emerging/ Developing
Key Elements	Infrastructure/ Computerisation	Traditional/ Internet	Mobile/ Start-ups/ New entrants	
Shift Origin	Linkages	Digitalization	2008 Finance Crisis/ smartphone	Last mover advantage

Table1 Evolution of FinTech: Global Context

FinTech 1.0, which lasted from 1866 to 1987, was the initial stage. The physical underpinnings contemporary telecommunication of infrastructure were constructed across the globe during this time (including important milestones, such as the installation of transatlantic transmission cables). This stage was crucial for the formation of correspondent banking and the expansion of financial institutions' global interconnection. Banks that want to deliver dependable services to their clients still employ this technology. The rich ground for the current age of innovation would not exist without this investment in infrastructure. The second stage, known as FinTech 2.0, began in 1987 and continued until 2008, when the financial crisis began. The traditional financial sector was created at this time. ATMs and other novel financial products and services were produced as banks became increasingly digitised and established large IT infrastructure to support their operations. Central clearing houses, stock exchanges, and foreign correspondent banking all grew in popularity, and regulatory requirements were established. With its branchfocused business models. FinTech 2.0 gave rise to contemporary banking, which is still employed by many banks today. During this period, there were a lot of innovations that were considered disruptive at the time. Banks, on the other hand, were overly reliant on their earlier triumphs, and previously adequate methods became outmoded.

FinTech 3.0 is now in progress, and it includes both new technology-enabled financial service enterprises and existing banking institutions. According to Arner et al., by 2014, around 12 billion USD has been invested in start-ups. This is a big lot of money, but what's more astounding is that the older FinTech 2.0 institutions spent over 197 billion USD on IT during this time, much of it to maintain their non-competitive legacy systems.

Evolution of FinTech Ecosystem in India

The foundations of Indian FinTech can be found in the effort done over the last decade to establish critical enablers. The current state of the Indian FinTech industry is the result of a unique mix of technical enablers, governmental interventions, and economic prospects, as well as certain additional characteristics exclusive to India. The Reserve Bank, as the payment system's regulator, has taken a number of steps to assure increased efficiency and continuous availability of secure, accessible, and inexpensive payment systems, as well as to serve parts of the population that have previously been unsaved by payment systems.

A regulatory timeline representing India's favourable policy moves to promote

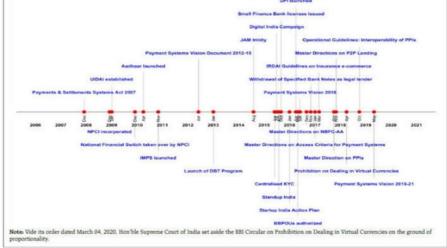


Figure 1: Regulatory Timeline of Indian FinTech

Source: (RBSA, Febuary 2021)

Growth of FinTech in India

Initially, FinTech was focused solely on loans and payments; but, as the FinTech ecosystem has grown, new FinTech platforms have emerged in a variety of sectors. Payments, Lending, Wealth Technology (WealthTech), Personal Finance Management, Insurance Technology (InsurTech), Regulation Technology (RegTech), and other sub segments make up the Indian FinTech ecosystem. Since 2016, more than \$10 billion has been invested in domestic FinTechs. FinTech in India has embraced several key segments, as well as a few business modalities within those segments(Table 2).

No	Segments	Sub Segments	Business Models	Revenue Modal	Key players
1	Digital payments (electronic payment options that include both remittances and payments made by businesses and merchants)	Prepaid payment instruments Payment Aggregators Payments Bank P2P & payment solutions	•M-wallets •PPIs •merchant payments •PoS services •international remittance •Trading in cryptocurrencies.	Earn revenues based on annual percentage rate or a flat fee	Paytm Mobikwick FreeCharge Avenue Razorpay Bharatpur Phone pe Gpay
2.	Financing Options (Alternative Lending)	•Digital lenders •Intermediaries	•Credit scoring •peer-to-peer lending •crowdfunding •loans •online lenders •on-book lending by NBFCs •Credit scoring platforms.	Earn from NIMs	Lendingkart bank bazaar Lazy pay
3.	Wealthtech	•Investment Platforms •Robo Advisors •Thematic investing •Discount brokers	 Robo-advisors discount brokers online financial advisors Personal finance management 	Earn revenues based on annual percentage rate or a flat fee	Upstok Cred Groww Zerodha
4.	Insurtech	•Digital insurers •Digital insurance Advisors	•Online insurance •Claims management •insurance aggregators	Earn premium or service charges	Policy bazar Coverfox.com Turtlemint
			•IoT •wearable kinematics.		Acko Sureclaim
5	Neo Banking		•Retails Neobanks •SME Neobanks		Neo Jupiter Finin Niyo
6	Enabling Tech and Regtech	•Accounting •Tax compliances	•B2B Saas(including customer acquisition and services) •E- KYC, AML,fraud and compliances •Account aggregations •Data capture and integration •Risk Management	•Earn fees from subscription	Khatabook EasemyGst Clear tax
7	Others	Blockchain, Cryptocurrency Al/Machine Learning, Loyalty/Rewards Coupons, B2B FinTech, Banking tech, BigData Analytics, Crowdfunding, Digital Cards, Remittances, Capital Market Tech and Trade Finance.			

Source: Author's Compilation

India's FinTech market is one of the world's fastest growing. Over 67 percent of India's 2,100+ FinTechs were founded in the last five years. In the quarter of June 2020, 33 new FinTech investment deals worth US\$647.5 million were closed in India, compared to US\$284.9 million in China.

As stated in FinTech Report 2020 by MEDICI, "In 2014–15, there was a massive uptick in the number of new FinTech start-ups; the numbers grew from 210 in 2014 to 454 in 2015—a 116% increase in growth. The period between 2015 to June end 2020 has seen phenomenal growth in new start-ups across Payments, Lending, Wealth, and others".

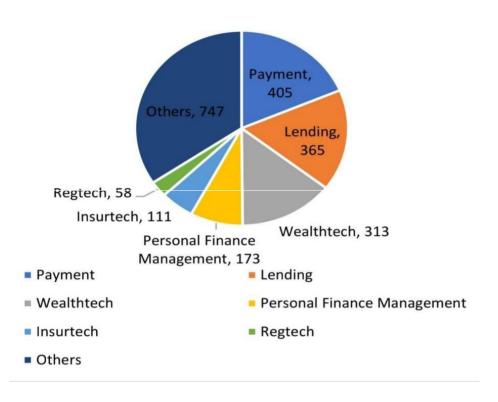


Figure 2: Number of FinTech start-ups in India: Segments wise

Source: Medici Report 2020

In the current scenario we are still witnessing phenomenal growth as the number of start-ups funded in H1 2021 (491) is already more than half of the total number of unique start-ups funded in 2020. (746)

In H1 2021, Indian start-up funding touched \$10.15 billion, already exceeding the \$9.94

billion raised in the whole of last year. This was raised across 543 deals from around 1,020 active investors in the ecosystem.

Table3 provides information about various sectors and their corresponding number of deals with the amount rose in \$million.

Sector	Number of deals	Amount raised (in \$million)
FinTech & Financial Services	98	1891
Edtech & Education Services	65	1412
Foodtech	2	1050
Ecommerce	38	879
Healthtech & Healthcare Services	53	700
Enterprise Tech	44	351
Retail/Consumer Brand	43	308
Total	343	6591

Table 3 : Deals in Various Sectors

Source: Medici Report 202, Author's Compilation

FinTech and Financial services received the maximum funding of \$1.89billion across 98 deals, followed by Edtech & education services with \$1.42Billion across 65 deals.

Furthermore, in the last several years, the unicorn club (any privately owned Start-up Company whose valuation is more than \$1billion is known as unicorn in the financial world) has experienced amazing development.

Even during the epidemic era, fresh unicorn additions accelerated in 2020 (11) and 2021(15). Out of the 15 unicorns joining the club in H1, 2021, 5 belong to the FinTech sector. This figure is anticipated to rise even faster presently.

Overall, the FinTech market in India is already worth US\$31 billion and is expected to grow to US\$84 billion by 2025. By 2023, the value of FinTech transactions is expected to increase to US\$138 billion, up from US\$66 billion in 2019.

Impact of Covid-19 Impact on FinTech in India

The FinTech sector saw a large drop in the number of start-ups funded during the early months of the pandemic and the economic slowdown it caused. However, by the end of the year, these figures had begun to rise, and strong traction was being seen across all FinTech areas. As per Digital Fifth's FinTech Report 2021, big agreements have been few and far between this year, with only two deals worth more than \$100 million (excluding the 700 million acquired by PhonePe from Walmart). A large portion of the investments were of a small to medium ticket level. Seed funding has accounted for a large portion of the investments, indicating that investors envision the market rebounding at a quick pace. This demonstrates investors' belief in the founder's vision and ability to execute it.

- The pandemic has raised awareness of the importance of having financial reserves, which has boosted customer and investor interest in savings-based FinTechs
- Savings and investment-based FinTechs were compelled to adapt their products, engage new consumers, and digitalize their operations as a result of the shift in market behaviour.
- Credit FinTechs faced difficulties in collection due to the moratorium, discouraging investors from investing and adding new credit FinTechs to their portfolios
- Due to the RBI's prohibition, Credit FinTechs faced a cash shortage until October 2020; market sentiments were therefore not supportive to repayments until Q3 FY 21.

- COVID-19 has acted as a catalyst for the next generation of insurance prospecting, selling, and customer experience.
- Following the Pandemic, Insurtech has experienced a significant increase in financing, as the majority of insurance purchases were made online.
- While most FinTech services were hit hard by the COVID-19 pandemic, digital payments have accelerated significantly.
- Consumer adoption of digital payments and use of digital banking services has led to a multi-fold increase in business for FinTechs in the payment sector.

Reasons for growth of FinTech in India

With one of the world's fastest-growing economies, India has undoubtedly emerged as one of the fastest-growing FinTech hotspots in recent years. Paperless lending, mobile banking, secure payment gateways, mobile wallets, and other concepts are already being adopted in India. Over the last two years, there has been a massive adoption of digital payment systems in India,

making it a lot more convenient to go about with basic financial services. This growth and expansion of the FinTech ecosystem in India have been aided by a number of factors, including the growing availability of smart phones, increased internet access, and high-speed connectivity. In fact, according to a report by Boston Consulting Group and FICCI, India is well-positioned to achieve a FinTech sector valuation of USD 150-160 billion by 2025, implying a USD 100 billion in incremental value creation potential. To achieve this goal, India's FinTech sector will need investments of \$20-25 billion over the next few years. ((Times, 2021). Some of the factors contributing positively to make this sector more attractive are as follows:

1) India Stack;

India Stack is a set of APIs that allow governments, corporations, entrepreneurs, and developers to use a unique digital infrastructure to tackle India's challenging challenges.It is founded on the core principles that services can be:

Layers	What is it?	What is in it?	Owner
Consent	A modern privacy sharing network	Open personal data store	Reserve Bank of India
Cashless	An electronic interoperable payment network	IMPS,AEPS , APB,UPI	National payment Corporation of India
Paperless	Easily store and retrieve information digitally	Aadhar, e-kyc,e- Sign, Digital Locker	Department of Electronics and information technology
Presence-less	Unique digital Biometric identity with open API access	Aadhar card, Mobile Card	Unique Identification Authority of India

Table 4: Principles of APIs

It is the world's most ambitious societal endeavour, with the goal of establishing a public digital infrastructure built on open APIs to support public and private digital initiatives. It was essential in the development and growth of India's digital infrastructure. The most major components of the stack over the years, Aadhaar and UPI, have seen an increase. During the 18 months leading up to June 2020, a number of incremental enhancements were made to various portions of the stack. There have been significant benefits such as lower transaction costs and business on boarding costs, as well as providing a broad-based, ubiquitous platform and personalised offerings at scale, allowing new businesses, developers, enterprises, and the government to establish digital footprints in the country.

Following India Stack's success, more than 20 nations have expressed interest in studying and adopting a digital identity system based on Aadhaar and the software stack built around it.

2.Government Initiatives;

In a heavily regulated financial market, the government is naturally the primary driver of FinTech success or failure. Through both financial and promotional activities, the Indian government, along with authorities such as SEBI and RBI, is aggressively supporting the Indian economy's desire to become a cashless digital economy and emerge as a powerful FinTech ecosystem.The government programs which played a key role in popping up FinTech are:

<u>Pradhan Mantri Jan Dhan Yojana (PMJDY)¹</u>-It added over 400 million² Bank account in banking sector

<u>Aadhar- widespread identity formalization</u>-The use of Aadhar for pensions, provident funds, and the Jan Dhan Yojana has been extended.

<u>Demonetisation</u>-As a result of the liquidity constraint that followed the announcement of demonetization in 2016, India's digital payment ecosystem was transformed.AI, blockchain, and IoTs were introduced, and the Indian FinTech market has grown at a rate of about 100 percent since then, from USD 1.8 billion in 2018.

<u>Innovations in Digital Payments-</u>in the previous year, home-grown payment networks (RuPay and UPI) accounted for 65 percent of total digital transactions, demonstrating that their efforts are paying off.

<u>UPI (Unified Payment Interface)-</u>The National Payments Corporation of India developed the Unified Payments Interface (UPI), which is a realtime payment system that supports transactions between multiple banks. The RBI-regulated interface works by transferring funds from one bank account to another over a mobile app in real time. The facility was introduced to the market in April 2016 and had an immediate uptick in demand.

National Common Mobility Card (NCMC): 'One nation, one card'

It was recently unveiled by the Indian government. Consumers can use this interoperable, contactless transport card to make a variety of purchases, from transportation to tolls and retail shopping, as well as withdraw money. Tax benefits on surcharges

Tax Holidays For Start-ups; Exemptions For Investors³

foreign direct investment limit (FDI) from 49% to 74% in insurance companies at the Union Budget 2021.⁴

Allocation of INR 15 billion to boost digital payments

Recognition of P2P lenders as NBFCs

It lowers the cost of borrowing as it removes intermediary margin and ensures lower interest rates. It also increases the alternative Supply of Credit. It also offer more options of funding to small businesses.

The RBI's Regulatory Sandbox⁵

Cohort is expected to spark innovations capable of reshaping the cross-border payments market by utilising new technology to suit the needs of a low-cost, secure, simple, and transparent system in a timely manner.

<u>SEBI- Securities and Exchange Board of India</u> It relaxes the norms⁶ for entities to enter the mutual fund business.

SEBI has developed an Innovators Growth Platform (IGP) framework for the listing of startups on stock exchange.⁷

<u>Start-up India</u>

It was launched by the Government of India in January 2016. Flagship initiative to build a strong start-up ecosystem

3.Increased Mobile and Internet Access

India's digital economy is accelerating. The number of internet users in India increased by 47 million (+8.2%)

Similarly, over the last two decades, the number of smart phone users in India has exploded. Thanks to the emergence of low-cost and lowcost cell phones, as well as low-cost data plans, there were 1.10 billion mobile connections in India in January 2021.The number of mobile connections in India increased by 23 million (+2.1%) between January 2020 and January 2021. This deep penetration into the Indian population base offers FinTech firms an opportunity to address the legacy issues of low banking penetration (53 per cent) and dormancy (43 per cent) in the Indian Banking sector. Like there were 624.0 million internet users in India in January 2021.

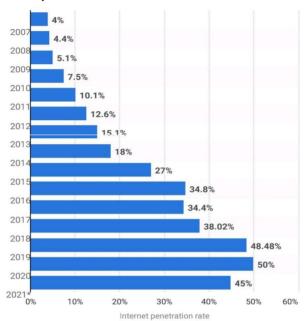


Table 4:Internet penetration rate in India from 2007 to 2021

Source: Statist 2021

4. Technological advancements

Smartphone usage is on the rise, which is one of the primary drivers driving technological breakthroughs and allowing mass acceptance. The way the banking business operates and provides services is changing as a result of technological advancements. The market as a whole is undergoing a significant transition as a result of new and cutting-edge technologies.Big data and analytics have the potential to help companies better understand their customers' needs, provide personalised products and services, and drive operational cost savings that lead to new business models like Artificial Intelligence and Machine learning. Infrastructure & Transaction cost have also reduced through usage of Cloud services and India stack.

FinTech Companies use technology to onboard customers easily, lowering customer acquisition costs, customer servicing costs, and distribution costs.

Payments Bank, for example, uses technology to grow their customer base while keeping their physical presence to a minimum.

Hence, FinTech's global growth has been fuelled in large part by technological advancements.

5. Investors Participation;

According to the MEDICI India FinTech Report, 2020 edition, investments in India FinTech expanded not only in 2019 but also in the first half of 2020. FinTech investments totalled \$1.47 billion between January and June this year, up 60 percent from the same period last year. According to research presented at the Global FinTech Festival in July, a large number of them -68 – were signed during the slow months of March and June.

The report highlights that since 2019, less than 10% of total funding went into early stage (Angel + Seed + Series A) deals. Close to 60% of total funding went to established companies (Series G and beyond). To avoid concentration and ensure even growth of the sector, a greater number of companies with convincing business models need to emerge.Table5 provides information for the stage-wise breakup of total FinTech Funding.

Stage	Total Number of Deals	Total Funding (Million)
Angel	7	4.55
Seed	97	165.5
Series A	48	330.2
Series B	26	868.8
Series C	18	484.3
Series D	8	180.8
Series E	3	105.3
Series G	3	1818.0
Others	53	1452.5

Table 5: Stage Wise Funding Since 2019- H12020

Source: India Medici Report 2020

Table 6: VC, PE Funding Since 2019

Sectors	Total number of Deals	Total VC/PE Funding (Million)
Payment	48	2453.1
Lending	88	1673.6
Insurtech	19	445.8
Wealthtech	34	213.4
B2B FinTech	18	166.1
Loyalty/Rewards/ Coupons	6	131.9
Neo Digital banks	11	122.0
Banking Tech	5	94.9
Artificial Intelligence/Machine Learning	3	63.1
Others	31	71.2
Total	263	\$5.3 BN

Source: India FinTech Report 2020 by Medici

There were 263 deals struck in 18 months between 2019 and the first half of 2020. Although payments garnered the greatest funding in terms of value, digital lending continued to lead fundraising activities in terms of number of agreements. In the previous 18 months, neobanking, a new market in India has seen substantial growth. In India, there are more than 15 neo-banks offering consumer and corporate banking services. In the last 18 months, there has been a surge in interest in Wealthtech. In 2018, the Wealthtech segment gained over 183 new companies, up from 303 in 2017.

6. Start-ups

A successful FinTech environment requires the evolution of start-ups. Consumer desire for digital financial goods, the widespread adoption of linked devices, and venture capitalist assistance have all aided the growth of FinTech startups.While start-ups use their cutting-edge technical capabilities to reimagine financial services operations, incumbent businesses are following suit and investing extensively in developing new products of their own. The trend is evolving away from start-ups being perceived solely as disruptors and toward them being seen as change catalysts. India's Ambassador to the US Taranjit Singh Sandhu said, "Today India is the third-largest, start-up ecosystem in the world."

7. Favourable Demographic in India

More than 65% the age of 35 years having apetite for innovative technology.FinTech uptake among Indian clients (both consumers and businesses) has been surprising quick. Years of cash, branch banking, and relationship-driven preferences are quickly being replaced by greater cashless transaction ticket sizes, full-suite mobile banking, and personalised advice and assistance regardless of location, language, or relationship. As of March 2020, India, alongside China, accounted for the highest FinTech adoption rate (87%), out of all the emerging markets in the world. (Source: PR Newswire)

8. Covid -19

COVID19 is also regarded as a watershed moment in the FinTech industry. It disrupted several FinTech company models in the early covid period, but it has re-ignited digital or contactless payments and neo banks throughout the year.FinTech investments totalled \$1.47 billion between January and July 2020, representing a 60% increase over the previous year.



Figure: 3 FinTech in India: Recent Trends

1. Expansion of UPI and RUPAY cards on both domestic and international Turf:

Payment network platforms such as RuPay and UPI (Universal Payment Interface) are witnessing worldwide presence expansion because of the assistance provided by the National Payment Corporation of India (NPCI). The corporation is in discussions with a number of international entities about expanding into areas such as West Asia, the United States, and Europe. RuPay has already surpassed MasterCard and Visa in terms of card volume in India, capturing more than 60% of the market. The Reserve Bank of India's (RBI) restriction on payments giant MasterCard onboarding new users, which will take effect on July 22, 2021, has caused banks to hedge their bets by partnering with Visa and home-grown Rupay.

UPI appears to have been the largest winner as a result of the COVID 19 epidemic. According to data from the National Payments Corporation of India (NPCI), payments on the Unified Payments Interface (UPI) reached an all-time high of Rs 1.34 billion in volume in June 2021, with transactions totalling about Rs 2.62 lakh crore. Bhutan was the first country to implement UPI guidelines for QR codes. It is also the second country in the world to accept Bhim-UPI at merchant locations, following Singapore.

As of May 2021, 224 banks had signed up for India's United Payments Interface (UPI), which had recorded 2.6 billion transactions worth \$68 billion, a 15x increase over the same period in 2018.

Introduction of e-Rupi vouchers for a transparent and leakage free delivery with the assistance of QR Code will further increase the digital transactions and DBT in India.

As demand for credit grows, FinTech companies are testing fast loan solutions and increasing the reach of their digital equated monthly instalment (EMI) products at brick-and-mortar locations.

There will be a dramatic rise in BNPL (Buy Now, Pay later) for digital purchases. BNPL is a personalised credit limit delivered by FinTech lenders which appears as a payment option while the consumer is shopping online. Example-Paytm's Programme "Paytm Now, Pay later". According to FIS' estimate, the usage of the BNPL option has shot up 570 percent during 2020.

PhonePe has done successful tests with Kiranas and small and medium companies (SMEs) around Khata (digital ledger) and ATM services, and their focus will be on enabling 'hyper-local commerce' for these 100 million Kiranas and SMEs, as well as for the at-home and gig entrepreneur segments.

Autonomous Finance will shape the banking industry. FinTech apps are the fundamental building blocks for autonomous finance. FinTech services use AI and machine learning to manage their customers' money, which is the autonomous component. These programmes utilise algorithms to assess the various options and help the user choose the best ones. Robo-advisors, which deal with software-based financial planning and mutual fund management, were the forerunners of autonomous finance. Later, it has evolved into automatic-saving applications and, eventually, into credit card debt management solutions.

According to the World Bank, about 1.7 billion individuals worldwide, especially in developing countries, are unbanked because they lack access to banking services. These regions, interestingly, have a high mobile phone usage rate, making them ideal locations for FinTech apps and branchless banking. In these areas, many FinTech solutions have been striving to improve financial inclusion.

2. Banking Partnership

Many of the barriers to digital transformation have been lifted as a result of the epidemic, and banks and other traditional financial institutions are cooperating with FinTech start-ups to attract new customers and engage with existing clients through new channels. To be competitive and roll out new services, banks will need to discover methods to integrate operations and data swiftly as they engage with innovative start-ups.

3. Neo-Banking 2.0

Digital payment firms spearheaded the initial wave of financial services disruption, followed by digital lending, wealth management, and InsurTech start-ups. However, Neo banks are leading the second wave, or "FinTech 2.0," which aims to revolutionise customer-centric consumer and business banking experiences. It will decline paper-based banking. Digital-only banks have the advantage of flexibility, and they typically offer innovative services at significantly lower rates than legacy banks.

4. Advanced Biometric Security System

Now that the entire world has gone online, hackers and cybercriminals are more active than ever. As a result, the FinTech industry will most likely develop enhanced security methods to prevent security breaches. Biometrics is the ideal approach to take security to the next level, giving users peace of mind that their information is safe. Its authentication will be able to secure payment transactions of up to 2.5 trillion USD by 2024.(Juniper Research)

5. Modernization of Technology

Artificial Intelligence and Machine Learning are two of the most popular FinTech technologies, with the potential to play a larger role in the finance industry as time goes on. AI algorithms can be used to forecast stock market movements, provide economic insights, and help financial institutions better understand their customers' spending habits.

According to studies, AI will lower operational costs by 22%. As a result, adopting AI can save a bank up to \$1 trillion.

Another financial technology that is gaining traction in the financial industry is block-chain technology, which has the ability to securely store transaction records and other sensitive data. When block-chain technology is used, each transaction is encrypted, and the chances of successful cyber-attacks are relatively low. According to a reliable source, 48% of bank executives believe that block-chain technology can make bank transactions more secure. As of January 2021, there have been over 600 million block-chain transactions in total. (Source: Blockchain.com)

6.Big Data and Data Analytics

FinTech organisations place a high importance on data from customers and marketplaces like consumer preferences, purchasing patterns, and investment behaviour etc. Good data insights are critical for finding possibilities and optimising products and services, making handling of all information systematically an important goal for a firm. As a result, FinTech developers will create applications that extract data quickly and precisely, allowing data processing to be sped up.

7. Robotic Process Automation (RPA)

The financial services industry will increasingly adopt RPA to complete jobs more quickly, save money, and increase organisational efficiencies while freeing up employees to focus on more important duties such as customer support. The data provided by Forrester indicate that RPA demand is expected to top \$2.9billion in 2021 compared to \$250 million in 2016.

8. Voice activated Technologies

AI-powered voice-activated technology is likely to transform the banking sector's client experience. In the future, voice assistants will be able to authorize payments based on a client's biometric data. However, this might lead to emergence of new security breaches which will pose a threat to a bank's security procedures.

Potential Challenges:

As discussed in the previous section, development in technology will also give a rise to various challenges which the FinTech Companies will have to face. These are as stated below along with already existing challenges:

- Automation of processes and digitization of data makes FinTech systems vulnerable to attacks from hackers.
- Recent instances of hacks at debit card companies and banks are illustrations of the

ease with which hackers can gain access to systems and cause irreparable damage. This has increased the fear in mind of customers, making them hesitant to switching to digital cash entirely.

- The most important questions for consumers pertain to the responsibility for cyber-attacks as well as misuse of personal information and important financial data.
- Difficulty in Regulation: Regulation is also an existing challenge which has emerged in the world of FinTech. Most trending example will be of cryptocurrencies as in most countries they are unregulated and have become fertile ground for scams and frauds.
- Due to the diversity of offerings in FinTech, it is difficult to formulate a single and comprehensive approach to all the abovementioned problems.
- Most of the Indian FinTech start-ups are closing due to Monopoly of Foreign companies. Indian Unicorn companies like Paytm are facing a severe fight with foreign FinTechs due to laws and regulations of the Indian government. Due to zero MDR¹, there is a huge fall of Indian Companies in the Digital payment system.

Conclusion

Undoubtedly, FinTech in India has a bright future ahead of it. Collaboration between traditional banking and this dynamic sector, backed by additional government efforts, might provide a big potential for India's FinTech industry to develop and thrive. The burgeoning Indian FinTech industry is on track to contribute another USD 100 billion to the market worth in the next five years. FinTech must bridge the digital gap and promote equitable, broad-based customer involvement across urban and rural locations, as well as the various generating and consuming sectors, in order to create a healthy and sustainable economic ecosystem. In the current times when new start-ups in Indian FinTech industry are rising, number of smart phone users

is increasing on daily basis, Government is continuously involved to build up digital infrastructure, we can hope that Indian FinTech industry will be shinning and growing in the times to come.

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