E-ISSN: 2708-4523
P-ISSN: 2708-4515
AJMC 2024; 5(1): 721-726

www.allcommercejournal.com
Received: 08-02-2024
Accepted: 13-03-2024

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FinTech: The new normal in the financial digital infrastructure

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Abstract
With the progression of financial system and various demands of customers, the traditional financial industry instigates to improvise the business practices, risk controlling and business models. FinTech looks at developing the business models rapidly to solve problems in the financial digital infrastructure. FinTech refers to any technology that seeks to enhance and automate the delivery of financial services in newer and faster ways than was traditionally available. This article provides a brief overview of the sector encircling its landscape, characteristics, driving factors and the regulatory environment in India. The research conclusion highlights that the framework of banking and financial sector has endured an incredible revolution since 2008 Global Financial Crisis, demonetization and COVID 19 pandemic, in terms of financial technology firms, popularly known as 'FinTechs'.

Keywords: FinTech, business model, financial digital infrastructure

Introduction
"Financial Technology" or generally known as "FinTech" has come a long way from merely automating the delivery and use of financial services. Currently FinTech has transformed and improved the entire financial sector by bringing out various state-of-the-art offerings across payments & transfers, financing & banking and capital markets & personal financial management.
FinTech, an agreement of the two terms "finance" and "technology," refers to any technology that follows to enhance and systematize the provision of financial services in unique and faster ways than it was conventionally available.
Initiated as a term referring to the back end technology adopted by large financial institutions, it has extended to embrace technological innovation in the financial sector, counting innovations in financial literacy and education, retail banking, investments, etc (Report of the Working Group on FinTech and Digital Banking, 2017) [6]. FinTech can be in the form of software, a service, or a business which offers technically advanced means to make financial developments more effectual by disrupting traditional methods. FinTechs have played a significant role in unbundling banking into basic functions of settling payments, performing maturity transformation, sharing risk and distributing capital (Carney, 2019) [1].
According to (FSB, 2019) [2] FinTech is defined as "technologically empowered financial innovation that could occur in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the delivery of financial services."

Reasons for the growth of FinTech
FinTech Sector originated to flourish in the 1990s when the Internet and e-commerce business models ascended and in the subsequent decade banking in many segments were digitalized. Due to the result of Global Financial Crisis in 2008, people lost their trust in traditional banking, since then systems, security and transparency has become more important than ever. This shifting mindset and the technology of cloud computing resulted in formulating new tailored solutions and standard procedures like providing access to banking profile, payment and transfer of money with automatically converted currencies. The demonetization drive in 2016 in India, can carefully be called another revolutionary moment which redefined the FinTech ecosystem as it was understood until then and put many FinTech startups in India on the map (Sahni).

The ban on INR 500 and INR 1,000 currency notes, which wiped out 86.4% of cash from the economy overnight, forced the public to switch to digital payments and online transactions. India has developed as the fastest growing FinTech market and the third largest FinTech ecosystem in the world (Mankotia, 2020) [4].

According to Accenture, existing FinTech companies have grown one-third of new revenue at the price of traditional banks. India laterally with China accounted for the highest adoption rate of 87% (global adoption rate is 64%) out of all evolving markets in the world (The "FinTech Market in India 2020, 2020) [9].

As per (MEDICI, 2020) [5] Report India has seen explosive growth in the number of new ventures launched in the FinTech space. 1216 new startups were founded between 2010 and 2015 India has the second-highest number of fresh such companies in the last three years after the US. The period between 2015 to June 2020 has seen remarkable development in new startups across Payments, Lending, Wealth and others. The following factors lead to India's evolution as a progressive FinTech nation:

- Explaining for identity in the form of Aadhaar for formalization
- A bank account or equivalents (PMJDY) to store money.
- Building scalable platform(s) to move money (IMPS, UPI, BBPS, etc.) &
- Allowing banks and FinTech companies and wealth/insurance/ lending players also to access platforms like UPI, GSTIN & Digi locker to innovate. (Sinha, 2020) [8].

2. Significance of the study

With the expansion of financial market and demands from customers, the old-style financial industry instigates to modify the business process, risk controlling and business models. FinTech appears and develops rapidly in various business models to solve problems in the financial markets (Liu, Liu, & Wang, 2020) [3]. Though a number of researchers have come up with research papers on the topic based on several sub-fields, there has been only few research on the overall FinTech business model knowledge system. This paper provides a brief overview of the sector encompassing its landscape, characteristics, influencing factors and the regulatory environment in India.

3. Research Methodology

The methodology used in this research paper is secondary data analysis. Only secondary data from some authentic government sources, working papers, reports and research papers of eminent researchers are used.

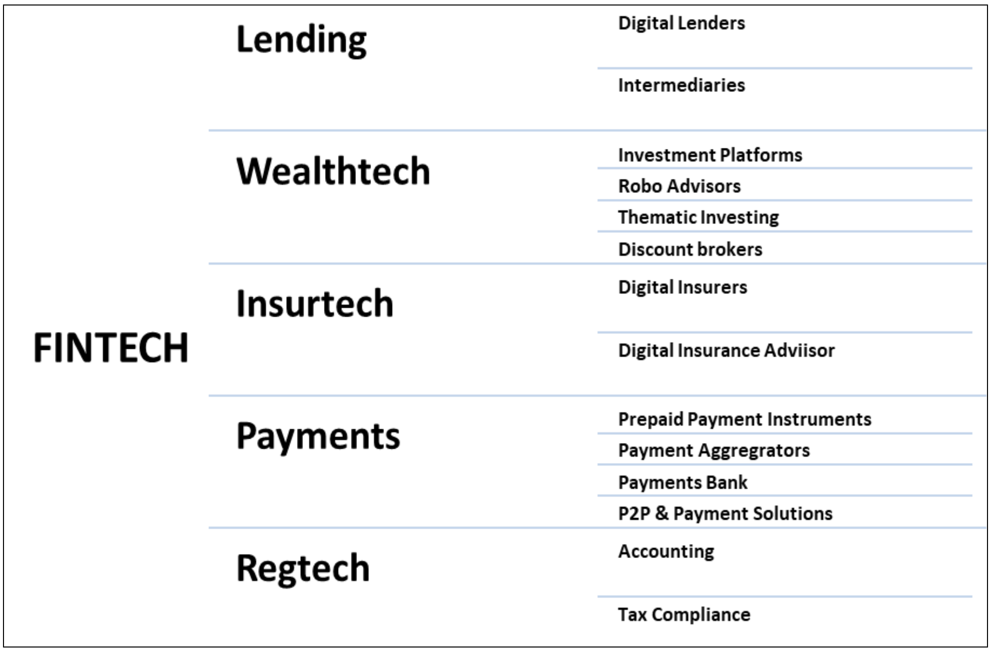
4. Objectives of the study

1. To provide a conceptual overview of the FinTech industry operating in India
2. To understand the factors influencing the FinTech sector in India
3. To study the regulatory environment in which FinTech operate

5. Findings of the study

1. **To provide a conceptual overview of the FinTech industry operating in India**

   The financial services provided by FinTechs are being bundled with a range of financial services. FinTech as an industry that uses technology to make financial systems and the delivery of financial services more efficient.



Lending

Online lending through FinTech firms is a rapidly expanding segment of the financial market that is receiving much attention from investors and increasing scrutiny from regulators (Barkley & Schweitzer, 2020). They can be classified as Digital lenders and Intermediaries.

Digital Lenders: Digital lenders lend to Consumer FinTechs (Retail Lending) and Business FinTechs (Merchant Lending).

Retail Lending: Retail Lending division includes various services like personal loan, pay day loans, gold loan etc. Loans are provided by using standard points for credit checks and they consider alternative data such as education and employment history to understand credit eligibility. Early Salary, Rupeek are some of the companies who are into Retail lending.

Merchant Lending: Merchant Lending emphasizes on satisfying the credit requirements of unserved market. According to Association of Chartered Certified Accountants, about 50.7 million enterprises (80 per cent of the 63.4 million MSME's in India) lack access to traditional lending channels. This opens doors for FinTechs to formalise lending for MSMEs. They provide services like SME lending, Invoice discounting, channel finance, credit scoring and collections. Lending Kart, Flexi Loans, InCred are serving in the area of Merchant Lending.

Intermediaries: They include P2P Platforms and Aggregators:

P2P Platforms are modern credit model to meet current business credit needs who aggregates lenders and borrowers, aids in matching of lenders with borrowers. Lenders earn interest higher than from bank savings, while the borrowers obtain funds at an interest rate lower than banks. P2P platforms providing services include Faircent, Paisadukaan, Finzy, Rupeecircle etc.

Aggregators: List all the lenders and allows borrower to compare and find the most suitable lender according to their requirement. The framework allows financial institutions to directly share consumer details with other financial services providers such as lenders or wealth managers with the customer's consent. It will allow lenders to evaluate a wider choice of data points to decide the borrower's creditworthiness. Bank Bazaar, Deal4Loans, Loanadda are few of the aggregators operating in India.

Wealth tech

The wealth sector in India has been experiencing vigorous growth due to growing digital adoption and increasing investor interest. The internet astuteness in India, powered by the pandemic has ignited the need for wealthtech solutions. WealthTech companies provide a group of digital tools. These tools include software programs to manage portfolios, manage investment planning, and automation software for investing. Many software products also employ AI to do the heavy lifting for the investor. The WealthTech Segment majorly includes the following:

1. **Investment Platform:** They are online supermarkets which facilitates in purchasing a range of funds, shares and bonds and other investments.
2. **Robo Advisor:** Digital platforms that provide automated, algorithm-driven financial planning services with little to no human supervision. It gathers information from users about their financial condition and forthcoming goals through an online study and then uses the facts to offer guidance and automatically invest client assets. Angel Broking ARQ, Scripbox, 5Paisa.com provide Robo advisory services in India.
3. **Thematic investing:** This model helps to invest in long-term trends by identifying macro level trends in investments. It focuses on predicted long-term trends rather than specific companies or sectors, enabling investors to access structural, one-off shifts that can chatnge an entire industry. Trendlyne, Screener provide thematic investing.
4. **Digital discount brokers:** They are online platforms and software tools that aim to facilitate access to stock market information and investment to empower retail investors and traders with the right tools for investing. Zerodha, Upstox, Groww are top discount brokers operating in India.

3. Insurtech

InsurTech companies have made the practice of buying all types of insurance stress-free and more convenient, from consumer offerings to small business insurance. Customers are able to investigate, compare policies, and buy online whenever they want without having to physically meet an insurance agent. It is quite emerging in India at this stage.
The key trends in InsurTech involves the following:

1. **Digital Insurance Advisors** assist customers to examine, compare, find and buy insurance products at affordable premiums from multiple insurers. According to IRDAI, the number of web aggregator platforms has amplified from 11 in 2013 to 25 in 2019. Turtlemint, Policy Bazaar, Coverfox provides advisory services.
2. **The Digital Insurers**: The concept of "digital insurance" is an umbrella term that encompasses the vast amount of new technologies that have changed the way nearly every insurer operates. They use technology-first business model to sell and manage insurance policies. They are not only focusing on issuance of policies but also claim initiation and settlement digitally which enhances overall customer satisfaction. In result of digitization, insurance companies now make use of digital channels like websites, apps, email, social media, live chat, text to reach out to customers. Acko, Digit, Toffee provides digital insurance services.
3. **Sachet Insurance:** These are non-comprehensive insurance policy generally known as Bite – sized Insurance or small ticket insurance. A small-sized Insurance Policy covers specific needs for a relatively shorter duration. These policies are accessible at a lesser premium and can often be bought from digital insurers using a smartphone without the need for paper works or tests. These are specific plans having limited but focused insurance coverage like Mobile Screen Protection Insurance Policy, Dengue Insurance, and Travel Insurance Policy etc.

4. Payments

The Digital Payments Environment in India has seen a huge increase in traction, particularly over the past few years. This can be accredited to innovations like UPI, NFS, BBPS etc coming into the picture. Digital payments are dealings that take place via digital or online modes, with no physical interchange of money involved. They have been the most funded and torch bearer of FinTech revolution in India. This progress has been further enhanced by the COVID-19 pandemic and the social distancing's norms that it has carried with it. Apart from the pandemic aspect, the Indian government has also been a big contributor to this digital push. In the Union Budget of 2021-22, the Indian Government has allotted a budget of 1,500 crore to boost the digital payments segment in the country.
The payments ecosystem majorly encompasses the

following:

1. **Prepaid Payment Instruments:** These are payment instruments that facilitate purchase of goods and services against the value stored on such instruments. The value stored on such instruments denotes the value paid for by the holder, by cash, by debit to a bank account, or by credit card. The Prepaid instruments can be issued as smart cards, magnetic stripe cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers and any such instruments which can be used to access the prepaid amount. PPI's can be classified as below
2. **Closed System PPIs:** These are payment instruments generally issued by business establishments for use at their respective establishment only. These instruments do not permit cash withdrawal or redemption and does not require approval from the RBI.
3. **Semi-closed System PPIs:** These are payment instruments which are redeemable at a group of clearly identified merchant locations/ establishments which contract specifically with the issuer to accept the payment instrument. These do not allow cash withdrawal or redemption by the holder of the instruments. They are delivered by banks which are approved by RBI and non-banks which are authorised by RBI.
4. **Open System PPIs:** These are payment instruments which can be used for purchase of goods and services and also permit cash withdrawal at ATMs.
5. **Mobile and Digital wallets (Payment Aggregators):** A digital wallet (or e-wallet) is a software-based system that securely stores users payment information and passwords for numerous payment methods and websites. It is an electronic version of traditional wallet that allows to make transactions without the need of having the bank account details of the receiver. Paytm, Mobikwik, Freecharge are few of the application providing digital or mobile wallet services.
6. **Payment gateway:** Under this model, FinTech companies integrate varied payment methods into the convenient form of applications or apps. It's a platform which allows an entity to receive payments on their website. These applications are adopted by online merchants, online businesses like e-commerce, and are easily affordable and seamlessly integrated on their respective websites. Therefore, the payment gateways are the appropriate platforms which let shoppers, consumers to pay for their shopping directly on the websites of e-stores or shops they are buying from, in the digital mode. Several payment methods include credit-cards, debit-cards, crypto currencies, digital wallets, etc. Razorpay, Instamojo, Paypal are payment gateways operating in India.
7. **Payments Bank:** Payments Bank was set up to operate on a smaller scale with minimal credit risk. Payments banks is an Indian new type of banks hypothesized by the Reserve Bank of India who cannot issue credit. These banks can receive a controlled deposit but are not allowed to issue loans and credit cards. These banks can issue ATM cards or debit cards and offer online or mobile banking. Airtel Payments Bank was India's first payment bank. The active banks operating in India includes Airtel Payments Bank, India Post Payments Bank, Fino Payments Bank, Jio Payments Bank, Paytm Payments Bank and NSDL Payments Bank.
8. **Peer to Peer (P2P):** Peer-to-peer lending allows individuals to acquire loans directly from other individuals, removing the financial institution as the middleman. It is also known as "social lending" or "crowd lending." P2P lending is generally done through online platforms that match lenders with the potential borrowers. Faircent, LenDenClub, i –lend offer P2P lending services

5. Regtech

The Financial Service sector is jam-packed with regulations. To reduce the burden of these regulatory terms, FIs are shifting towards adoption of new technology solutions. It is the administration of regulatory procedures within the financial business through technology. They focus on easing compliance procedures and automating routine time consuming tasks through digitization of manual reporting and compliance processes. The goal of RegTech is to improve transparency as well as steadiness and to regulate regulatory processes, to deliver sound clarifications of unclear regulations and thus to provide higher levels of excellence at lower cost. An example of RegTech is emergence of eKYC in onboarding customers. A few other examples are clear tax for tax assistance and KhataBook, EasemyGST are examples of credit scoring platforms, accounting platforms.

2. To understand the factors influencing the FinTech sector in India

The FinTech industry is growing in India at an exponential rate due to growing startup ecosystem, increasing smartphone penetration and evolving digital infrastructure. The services are offered across various areas such as digital lending, digital payments and asset management, the FinTech industry in India is adopting technology to modernize the various financial process.

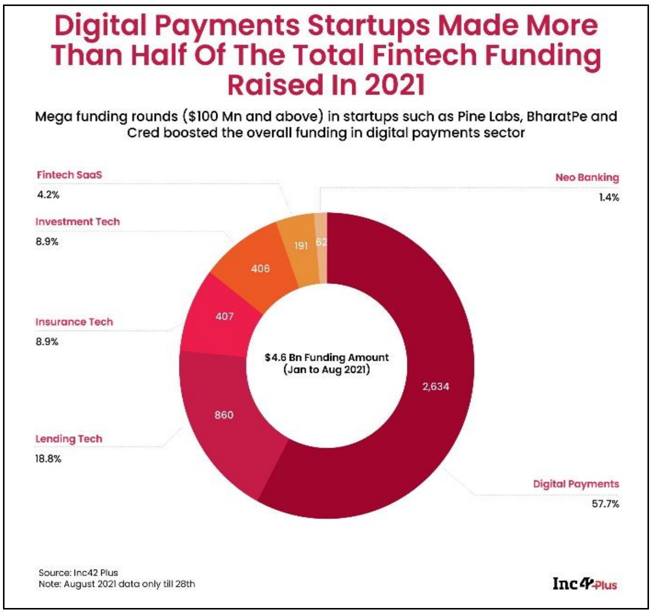
As per EY Global FinTech Adoption Index 2019, India emerged as a FinTech Industry Leader with the highest FinTech Adoption Rate of 87%. Each year the numbers are improving, and the growth is so fast that India processed nearly 10 billion more real-time payments than China in 2020. The FinTech industry is influenced by various factors like:

1. **Increase in Digital Lending Platforms:** There has been an upsurge in the online lending platforms which offer personal and business loans effectively. These platforms are posing competition to the age old banks as they are making themselves more reachable to the under banked population.
   These platforms provide unified experience to the customers as minimal documentation is involved during the lending process. They adopt technology to appraise the soundness of the borrowers and lend them the money needed.
2. **Increase in the Digital Payment:** Backed by the government's Digital India initiative and collaboration between the government, banks, and FinTechs, the digital payment ecosystem in India is growing fast. The pandemic has augmented the shift to digital payments as people have moved to e-commerce and taken steps to reduce handling cash in ordinary purchases. Bankers and payment players point out that user behavior has

changed over the period and digital payment and banking have been fully accepted by customers and it is unlikely that they will revert to using physical modes of banking or use of cash for certain payments post the pandemic.

3. **Cost of Operations:** Majority of the FinTech companies have a cost benefit over incumbents. They use technology to effortlessly on board, leading to reduction in acquiring clients, lessen servicing cost for customers and decrease in cost of supply E.g. Payments Bank embrace technology to widen the customer base while restricting physical presence.
4. **Embracing Technology:** FinTech is the blend of technology and finance and the harmonic combination of two of the largest industries into a single field. Technology is altering the way the finance industry functions and offers services. The overall market is experiencing a major revolution leveraging new and cutting-edge technologies. To offer upright experience to their customers, personalize products & services and drive operational cost efficiencies, FinTech companies are using Block Chain, Artificial Intelligence and Big data in their processes which in turn helps in scam reduction, enhanced risk identification, and automated trading practice and safe payment process.
5. **Greater acceptance by the clients:** In the age of digitalization, FinTech companies are transforming in an enormous way, offering new variant of services, and adopting new technology to meet customer expectations. FinTechs must find state-of-the-art and cost effective ways to obtain and retain customer loyalty in an atmosphere where the impediments to churn are lesser. For e.g. gaining customer trust, providing a seamless experience by reducing friction in digital transactions.
6. **Funding Environment:** FinTech is a highly regulated sector and its business model often depend on on scale of economies, hence the startups tend to require very long runways before they grow profitable. The FinTech business is pigeonholed by high up-front investments and low marginal costs at the later stages of growth. FinTech companies to raise, the availability of Funding through VC and PE firms is vital. These companies can preferably be established in dominions where abundant early stage funding is existing and potential investment rounds later can be secured.

As the Indian startup funding hit an all-time high with $26 Bn raised in the first eight months of 2021, the FinTech startup ecosystem saw 5.8x higher capital inflow to reach $4.6 Bn funding across 160 deals as compared to the same timeframe last year.



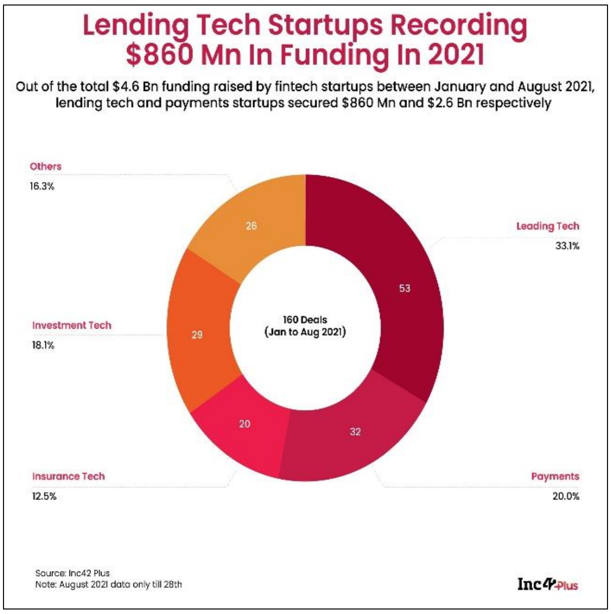


Fig 1: Source: Inc42 plus

7. **Focus on underserved areas of banking:** Like bread and butter, FinTech has always been paired with terms such as financial inclusion, “unbanked,” and “under banked.” Development in FinTech are aiding ease of access to banking for conventionally underserved populations. FinTech trends such as digital payment systems and microfinance help overcome access barriers in traditional banking and bridge the financial inclusion divide. The biggest impact from new technologies often comes not from the technology itself, but from how they enable to restructure production, as well as consumption, in a totally new way. Due to this, FinTech may have less of an impact in regions where people and businesses already have good access to financial services, and more of an impression in spaces where people formerly haven't had access to any sort of financial services. This contains the unbanked, rural regions, as well as SMEs
8. **Acceptance of technology by banks:** The relentless increase in association between banks and FinTech startups in the form of supplementary offerings, partnerships, acquisitions, incubators and investment is also one of the key drivers of India’s FinTech growth as well. Technology and IT infrastructure is the substance of FinTech. The FinTech infrastructure backbone has been strengthened immensely with the host of options available to market participants such as BBPS, Bharat QR, India Stack, and UPI.

3. To study the regulatory environment in which FinTech operate

The FinTech sector in India has perceived a substantial growth in the past decade. The Government of India to ensure protection of customer and economic interests, nurture innovation and competition and harnessing vigorous and sustainable growth environment for FinTech entities, has undertaken numerous regulatory measures. The regulatory landscape governing FinTech in India is largely disjointed and there is absence of single set of guidelines or regulations governing FinTech products in India. They fall within the regulation of one or more regulatory bodies likes RBI, SEBI, MEITY, MCA, NPCI, and IRDAI. However, the RBI presently regulates the majority of FinTech entities dealing with payments, lending, other FinTech entities etc. The key FinTech Regulations governing FinTech in India are:

1. **Payment and Settlement Systems Act, 2007:** This Act is the fundamental legislation, overriding the payments regulation in India. The PSS act prohibits the initiation and operation of any 'payment system' in India without prior authorization of RBI. Section 2(1) (i) of the PSS Act 2007 defines a "payment system" as "a system that enables payment to be effected between a payer and a beneficiary, involving clearing, payment or settlement service or all of them, but does not include a stock exchange". Payment structures include credit and debit card operations, smart card operations, money transfers, and PPIs.
2. **Guidelines regulating P2P Lending Platforms:** Peer-to-Peer Lending Platform Directions of 2017 suggest the lender exposure norms and borrowing limits concerning the operations of P2P lending platforms in India.
3. **NCPI Regulations regarding UPI payments:** The UPI Procedural Guidelines, issued by the NCPI, regulate the UPI payments in India. According to this, banks need to generate the money transfer services happening through UPI platforms. Banks can engage technology providers to carry out the operation of mobile applications for UPI payments but under the eligibility criteria and prudential norms as prescribed by the NCPI.
4. **NBFC Regulations:** The Reserve Bank of India Act of 1934 governs all NBFCs. According to its guidelines, any organization offering FinTech services in India should be registered by the RBI. Section 45-IA of RBI Act, 1934 says, NBFC cannot initiate or carry on the business of a non-banking financial institution without procuring the certificate of registration from RBI.
5. **Regulations governing Payment Banks:** The payment banks do operate as a bank but function on a smaller scale. It cannot provide loans or issue credit cards. The payments banks are licensed under section 22 of the Banking Regulations Act, 1949 and are registered as private limited companies. Specific licensing conditions restrict the banks' activities, especially for the acceptance of demand deposits and on payment and settlements.
6. **e-KYC and Video on-boarding of customers:** The law in terms of KYC and on-boarding of customer rules had increased the burden and costs of operation for FinTech players. The regulators by recognizing these operational challenges, legalized FinTech players to adopt certain modes of digital and video KYC to on-board clients allowing more cost effective customer acquisition strategies. In relation to this, Insurance Regulatory and Development Authority has allowed general and life insurance providers to use video-based identification process (VBIP) for onboarding customers, RBI has already permitted financial institutes for video-KYC, it will help in reducing the manual process.

6. Conclusion

FinTech has the potential to profoundly transform the financial landscape, offer consumers with a more diversity of financial products at reasonable prices, and help FIs become more efficient. To achieve a vigorous and viable business network, FinTechs need to conduit the digital divide and endorse unbiased, broad-based customer partaking across urban and rural areas and the several producing and consuming sectors. FinTech services have had a very good opportunity to develop, maintain an optimistic experience, and acquire loyal customers. In the future, FinTech services will prosper. Enterprises need to learn more about user's online activities and habits to make the most suitable decisions to adapt to consumer's needs.

FinTech industry is still in its early espousal stage but it is well-positioned to witness long-term growth in the coming years. The changes will be more intensive on alternative finance and open banking. FinTech development will eventually build enormous opportunities for firms and support them to empower in the digital age. The more and more development in technology, financial services become accustomed to elevate their strategies, more growth in this sector is expected. This is just the beginning of a huge FinTech market in the upcoming decade.

7. References

1. Carney M. Enabling the FinTech Transformation: Revolution, Restoration or Reform? BIS Central Bankers' Speeches; c2019.
2. Financial Stability Board (FSB). FinTech Developments and Potential Financial Stability Implications; c2019.
3. Liu J, Liu J, Wang S. What have we learnt from 10 years of FinTech research? A scientometric analysis. Technological Forecasting and Social Change; c2020.
4. Mankotia A. FinTech and Financial Services. BFSI; c2020.
5. MEDICI. India FinTech Report; c2020.
6. Reserve Bank of India. Report of the Working Group on FinTech and Digital Banking; c2017.
7. Sahni A. Which Are The Most Successful FinTech Startups In India? [n.d.].
8. Sinha S. With over 2000 FinTech startups India emerges as a leading hub. ETBFSI; C2020.
9. The "FinTech Market in India 2020; c2020.