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Major Opportunities, Challenges, Financial Technological Implications of Fintech in Indian Context

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ABSTRACT:

India, which has a population of around 1.3 billion, is a growing market for fintech. India is an exciting global market for financial innovations due to the country's high percentage of unbanked and underbanked citizens. Fintech is viewed as a paradigm shifter and disruptive innovation that has the power to upend the established financial markets. In the previous five years, fintech has expanded quickly in India, and in the near future, more growth is anticipated. The essay begins by concentrating on the fundamental categories of financial technologies and their roles. It then goes on to analyze the potential and challenges these technologies present in the Indian corporate climate. This study looks at the specifics of the financial technology sector, the definition of FinTech, and possible classifications for the financial technology solutions used by businesses. FinTech, also referred to as financial technology. Typically, start-ups focused on challenging less software-dependent businesses and financial processes are called financial technology companies. Fintech is not just for start-ups. The term "fintech" refers to a new area of financial services that has emerged in the twenty-first century. With the help of PwC's knowledge and expertise in this field, this research seeks to offer important insights into the development of the FinTech sector in India. PwC claims that Financial Services and Fintech are cooperating rather than competing as much. In its Global Fintech report, PwC examines the FinTech's expanding impact on the financial services industry. With the help of PwC's knowledge and expertise in this field, this research intends to offer important insights into the development of the FinTech sector in India. It uses cutting-edge technologies to give customers and financial institutions a variety of contemporary tools to manage their accounts as it encompasses advancements in investment, retail banking, investment management, and even cryptocurrencies like bitcoin.

Keywords: Financial innovation, Customer experience, Payments, Security, Artificial Intelligence, Open Banking, Block Chain, Financial Services, Fintech Revolution. Crypto Currency

Introduction:

The new technology and innovation known as financial technology (FinTech or fintech) intends to compete with conventional financial methods in the provision of financial services. Examples of technology attempting to increase financial services' accessibility to the general population include the usage of smartphones for mobile banking and investing services. Financial services and technology are becoming increasingly entwined. Tech-focused start-ups and other new market actors are altering how the financial services sector usually functions in this area of the industry, which is quickly evolving. The competitive landscape is being reconfigured by new FinTech businesses and market activity, which is altering what constitutes a player in the financial services industry. In India, the financial technology (FinTech) sector has only recently emerged. An industry called fintech includes businesses that provide financial services using technology. These businesses deal with payment, asset management, and insurance, among other things. Over the past few years, there has been an urgent need for numerous FinTech start-ups, accelerators, and incubators in India. India is making every effort to become a leading global FinTech hub. India has a significant opportunity to dominate the FinTech sector thanks to its sizable untapped market, growing mobile and internet banking, favorable demographics, active start-up ecosystem, and big pool of IT talent. "The new applications, processes, products, or business models in the financial services industry, composed of one or more complementary financial services and provided as an end-to-end process through the Internet and used to computerize insurance, trading, and risk management," according to the definition of fintech. Additionally, blockchain and bitcoins are emerging internet technologies that have the ability to change the financial sector and upend global markets. In contrast to branch banking, the online banking system known as internet banking is often a component of the main banking system run by a bank. A New York banker first used the phrase "FinTech" in 1972. FinTech companies offer services like payment options, online marketplace lending, mobile apps, financing, foreign exchange and remittances, investments, distributed ledger technology, digital currencies, mobile wallets, artificial intelligence and robotics in finance, crowd funding, insurance, and wealth management. However, there is no widely accepted definition of what constitutes FinTech (Digital Finance Institute, 2016). As a result, new technology-enabled trends that encourage innovation have had a substantial impact on and influence over the financial services sector.

What is Fintech?

Fintech refers to the innovative procedures and goods that are now accessible for financial services as a result of advances in digital technology. Fintech is more specifically defined by the Financial Stability Board as financial innovation that is technologically enabled and may lead to new business models, applications, processes, or products with a material impact on financial markets and institutions as well as the provision of financial services. The Fintech industry, however, consists of a wide range of components that, according to Dortfleitner et al. (2017: 34–36), can be broadly divided into four primary categories: financing, asset management, payments, and other Fintech. Figure 1 below shows the four main portions together with their components.

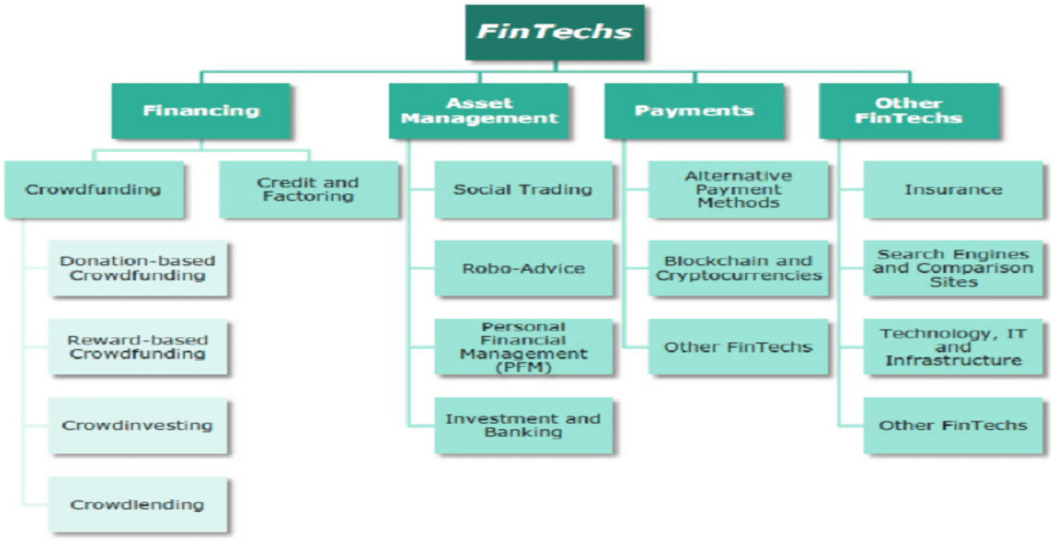

Figure 1 showing segments of the Fintech Industry

Market Size and Growth opportunities for Fintech in India:

The National Association of Software and Services Companies (NASSCOM) said that India has over 400 fintech businesses and invested roughly $420 million in the sector in 2015. The fintech software and services market was predicted by the NASSCOM report to increase in value by 1.7 times by 2020, reaching $8 billion.

The India Financial Awards (IFTA) are a venue for honoring and showcasing the top innovations from fintech businesses. The history of fintech in India is as follows: 34% of the workforce is devoted to payment processing, 32% to banking, and 12% to trading, public, and private markets. Accelerators and incubators, also known as businesses that support the growth of new and startup companies by offering services like management training or office space, are being developed as fintech hubs. The local government of Andhra Pradesh opened the fintech Valley Tower to encourage investment in this region. As a member of the Global FinTech Hubs Federation, India FinTech Forum speaks for Indian fintech companies (GFHF). Fintech adoption in 2017 is another issue that typically hinders innovation; in order to shift consumer behavior, more marketing and consumer education effort is needed. Government initiatives to encourage financial system digitization and reduce the amount of cash used in the economy have been particularly successful in moving consumer attention to digital changes for financial transactions, with the payment industry benefiting more. The FinTech industry is also making an appearance in the 2017 budget speech. In comparison to the global average of 20%, the projected return on investment for FinTech ventures is highest in India at 29%. Plans like Jan Dhan Yojana, Aadhaar, and the advent of UPI established a solid foundation for FinTech companies and also improved the nation's financial condition. Support from the government has enhanced customer acceptance. Due to demonetization, the "Payments" area of the Indian FinTech scene has received the most funding. But banking technology solutions are also expanding quickly and enabling financial firms to offer end customers ongoing solution supply. Despite a large decline in incoming foreign investments in the FinTech sector, the prospect in India is still favorable and attractive. India has the largest unbanked population and a robust business and technology ecosystem.

The Indian government's goal for financial inclusion, digitisation, and start-up activity has resulted in the recent establishment of legislation that give the country's FinTech industry a solid foundation.

- **India Stack:** The government has given businesses, innovators, and organizations access to a global technical framework through the establishment of India Stack, enabling the fastest growth of FinTech companies. With FinTech at the forefront of many reform measures, the current position is reminiscent of the government's approach toward the telecom industry in the 1990s.
- **India's Start-Up Program:** It was started by the central government and consists of regulatory process simplification, tax breaks, and revisions to patent laws, mentorship opportunities, and greater support from the government.

- **Jan Dhan Yojana (PMJDY):** This policy has considerably increased financial inclusion in the nation; it is one of the largest financial inclusion programs in the world and aims to make opening bank accounts easier for sizable portions of India's billion-plus population.
- **Adoption of Aadhaar:** The RBI authorized Aadhaar-based biometric authentication, enabling the opening of bank accounts via e-KYC at any Banking Correspondent (BC) location. Financial services providers will be able to conduct e-KYC checks more affordably as a result, lowering consumer transaction costs.
- **Initiatives from the National Payments Council of India:** The National Payments Council of India (NPCI) introduced the Unified Payments Interface (UPI), which has influenced the growth of mobile phones as purchasing devices, significantly lowering the cost of infrastructure for FinTech ventures, and also the expectation that digital banking will grow more quickly than ever. These measures are particularly beneficial for an Indian financial sector that is digitally equipped and also support Indian technology and banking practices.
- **Public relations:** The Indian government has also made a significant contribution to educating and motivating customers to use digital payment methods. In particular, regulatory ambiguities and worries affect emerging business models made possible by FinTech applications like P2P transactions, crowdfunding, and data security.

PWC'S FINTECH (Price water house Coopers):

The global professional services network PwC has its main office in London, United Kingdom. It is one of the Big Four auditors, together with Deloitte, EY, and KPMG, and is the second-largest professional services company in the world. According to PwC, London, the development of financial services has changed from considering fintech startups to be humorous sidekicks to some crucial partners. According to the most recent Global Fintech Report from PwC, 82% of survey respondents who were appointed planned to strengthen their ties to fintech businesses. Additionally, PwC reports that the majority of financial institutions are implementing disruptive fintech and creating false partnerships to support operational efficiency and satisfy customer demands for more innovative services. According to 1,308 global financial services and fintech executives, "The influence that fintech is having on the market is growing and the long-term potential is even greater." It was founded in 2008 with the intention of having an impact on sustainability of the environment and education. Their key goals for the fiscal years 2016 to 2020 state that their main areas of interest include water, sanitation, and hygiene (WASH), social entrepreneurship, and issues relating to urban children. Projects and free-of-charge initiatives from the PwC India Foundation are carried out in 15 locations around India and Nepal, focusing on areas with a high need. Its work is completely focused on this potent union of financial services and technology.

Main purpose of PwC is:

- **Education:** They help students finish their secondary and higher secondary education through open schools, and they also give scholarships to impoverished youngsters so they can continue their education. Children with disabilities are given more attention. They have worked on more than 30 kid-focused projects since 2008. In addition to these, they give teenagers options for vocational training so they can select the right careers. PwC is a firm believer in providing an urgent humanitarian response to regions that have been damaged and devastated by natural disasters. Volunteers make donations for them, which aids in the mobilization of supplies and prompt assistance. PwC has been providing assistance to the following affected areas since 2013: the Uttarakhand Flood Response, the 2013 J&K Flood Response, the 2014 Chennai Flood Response, the 2015 Nepal Earthquake Response, the 2016 Manipur Earthquake Response, the 2017 drought mitigation intervention in Maharashtra, and so forth.
- **Environmental Sustainability:** Measures are taken to lessen the environmental impact of our business operations and to increase awareness of various elements of environmental protection, such as lowering carbon footprints. Protection of farmland after heavy rains and support for farmers in planting, cultivating, and harvesting various agricultural products. More than 10,000 volunteers have given to this cause and helped plant trees where they are most needed. Children living in urban areas make up 30% of India's population, but their needs are frequently overlooked while developing cities. A first move was taken by the PwC India Foundation, which worked in partnership with Save the Children India and PwC India to launch "Forgotten voices: It places an emphasis on kids, especially those from underprivileged sectors, and gives them the freedom to make choices that respect their needs and rights. PwC collaborates with BUDS, a non-profit organization, to aid orphans and disadvantaged kids.
- **Water, Sanitation, and Hygiene (WASH):** To aid the Swachh Bharat Abhiyaan of the Indian government, which aims to provide sanitation services and facilities in places with a high demand? They built toilets, made healthy and secure school sanitation facilities, especially for girls, and offered soft-skill training to students to encourage good hygiene and health habits.
- **Social entrepreneurship:** The PwC India Foundation (PwCIF) promotes the growth of social enterprises in India by creating more effective agents of societal change. The School of Social Entrepreneurs (SSE) India and PwC both work to provide Indian individuals with the necessary training and experience.

High customer experience- A Win-Win Scenario:

While customers are always the main winners in any organization, incumbent companies can also benefit from a win-win situation. If the customer journeys are successfully revamped, it encourages customers to think of financial institutions as experts who can be relied upon for guidance and a larger range of services in addition to being service providers. A few elements may have a good effect on customer experience. Businesses may maximize their efforts to improve their customer journeys if they concentrate on a few key components. The discussion of these elements follows.

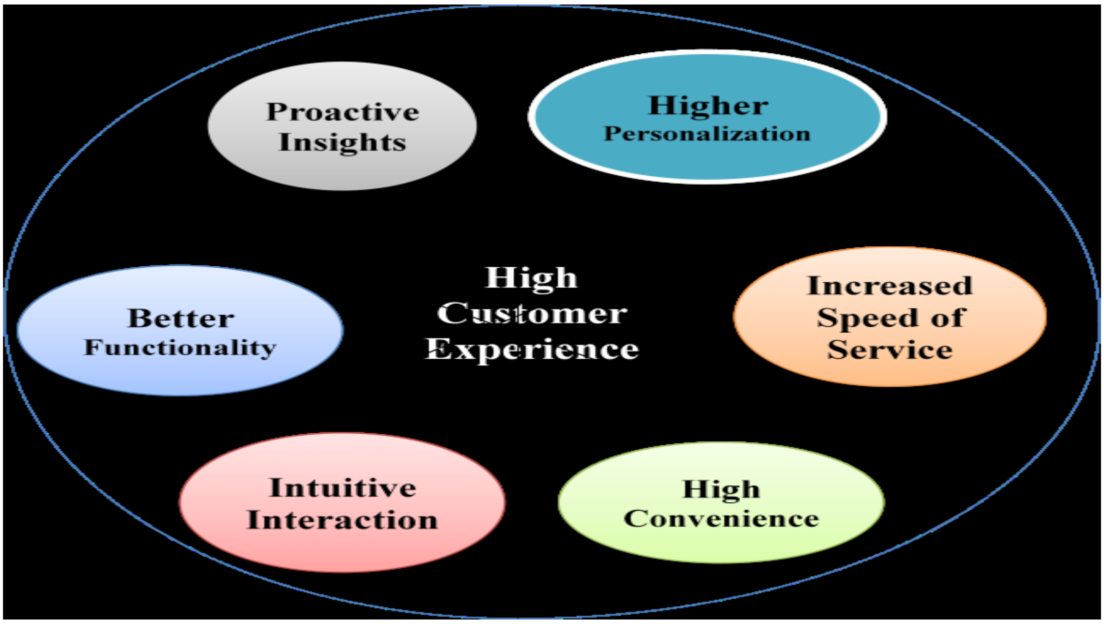

Figure-2 showingHigh customer experience- A Win-Win Scenario

- **Higher personalization:** Huge amounts of client data are readily available and can be leveraged to deliver customised goods and services that cater to customers' tastes and preferences.
- **Increased speed of service:** Customers of today are accustomed to completing tasks promptly and digitally. Excessive delays are turning off customers. Therefore, the service's speed needs to be raised to reduce these circumstances.**Improved convenience:** Access to any service at any time, anywhere, through any channel or device, is possible with 24/7 services.
- **Intuitive interaction:** Through the use of design-based user interface principles, customers can be gently guided through their journeys. Additionally, businesses can use AR and VR technologies to improve client engagement.
- **Better functionality:** Businesses continue to develop while addressing customers' problems. It assists in offering creative solutions.
- **Proactive insights:** Predictive analytics is used by businesses to anticipate and understand client wants and tailor their offerings accordingly. Businesses assist clients in finding ways to save money or prevent fraud. Sometimes these unexpected offerings can enhance and delight the consumer experience.

Fintech Industry Segments:

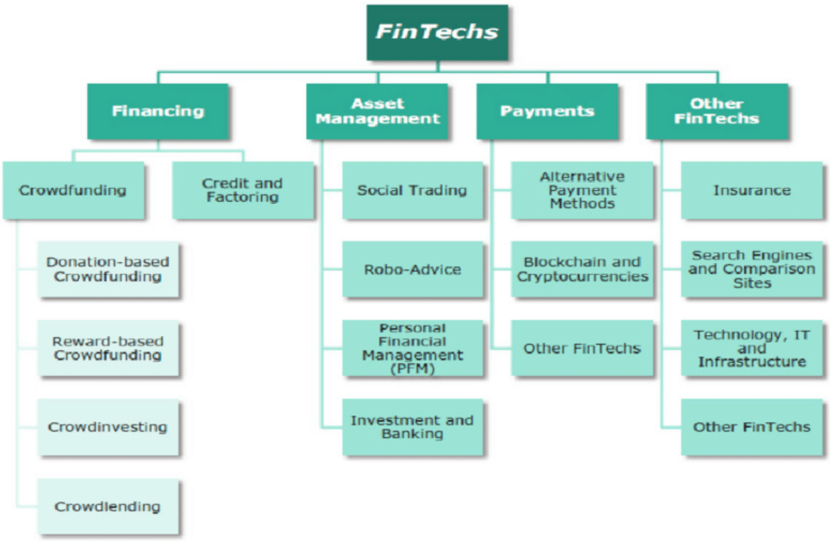

Figure 3 showing Fintech Industry Segments

- **Financing:**

Fintech businesses are transforming the lending or financing process. No longer are people required to borrow money from banks. Loans are now being made straight to customers by many fin tech companies. They can apply for loans online and immediately have them approved. Businesses evaluate the creditworthiness of the borrowers and swiftly automate the underwriting procedure. There are two options for funding. They are credit & factoring and crowdsourcing.

- **Crowd Funding:**

There are various forms of crowd fundraising available. For businesses and investors, each of them has unique advantages. The customer must select one of these based on his or her demands.

- **Donation based crowd funding:**

Crowdfunding donations are used for causes or for charitable organizations. Donations are made in this location with no expectations other than satisfaction.

- **Reward based crowd funding:**

It's a particular type of source for financing small enterprises. The majority of creative initiatives employ this. This enables investors to contribute money to the project for reasons other than profit. It resembles a worn-out mechanism. The award will increase if he donates more (Reward are like tickets to an event, coupons, free gifts etc.). Delivering the provided incentive won't be very expensive. The advantage for the company will be this.

- **Crowd investing:** It is the word used when a sizable crowd or group of people co-invest in individuals or businesses online. Equity and loan investments are also included in crowdsourcing. Before deciding to invest, the group of investors does not need to be acquainted. In exchange for their investment, they can receive interest or shares.
- **Credit and Factoring:** As a result, just like lending, factoring has moved online. Online applications are available from fintech companies with simply a mouse click. This is giving small business owners a fresh method of accessing working money. Companies can sell their account receivables by pressing a single button, and in a very short time, they will have money in their bank accounts. An option for financing where a seller can obtain a loan against his receivables is factoring.

II. Payments:

The other well-known subcategory of the financial technology business is payments. These kind of businesses let consumers to send money to one another without utilizing banks. Peer-to-peer transfers are a straightforward payment method, yet banks charge exorbitant fees for them. Fintech businesses enable users to send money rapidly and affordably. It is now possible for businesses to process payments more affordably than banks because to technology like block chain.

- **Alternative payment methods:**
- If we wish to make a payment, we typically log into the bank account and manage from there. For consumer convenience, Fintech companies have since established various payment methods. They facilitate payments for the vast majority of clients without requiring them to register into their bank accounts. Several businesses now permit clients to pay using their social media accounts, such as Twitter and Facebook Messenger. The client does not have to exit the app and check in to the bank's app.
- **Block chain technology and crypto currency:**
- Fintech companies used block chain technology to disrupt the banking and financing sector. Block chain is now used to record transactions in a shared digital ledger and to better trace the movement of one's assets. Since the information is spread throughout a network of personal devices, it cannot be stolen. Therefore, the security issue, which is currently the main difficulty, is being resolved. It is cheaper and facilitates prompt payments. They don't use middlemen like banks do.

III. Asset Management:

As a part of asset management, high net worth individuals receive financial and investment counseling services. People can speak with wealth managers directly to arrange for their financial needs, such as insurance, retirement, and portfolio management. They don't have to ask several people or businesses for assistance.

- **Social trading:**
- The foundation of social trading, a relatively recent concept, is the idea that the aggregate expertise of thousands of traders is superior to the insight of a single trader. Social trading hubs connect traders from all around the world. They establish a network where various people can exchange ideas and goods. Instead of relying on quantitative data, broker recommendations, or firm fundamentals, investors can use the knowledge to make critical societal decisions.
- **Robo advice:**
- For the purpose of helping you manage your investments, a new kind of software has been created. The majority of investment advice is automated using algorithms. It works as an excellent financial advisor for people who don't want to utilize one or for those who don't have

enough assets and can't afford to pay for one. Robotic financial counselors diversify their clients' investments.

- **Personal financial management** (PFM):
- It alludes to the computer program that assists people in managing their finances. The term simply stands for technology-based budgeting. You can add accounts from various institutions, which aids in budgeting. It aids clients in keeping tabs on their earnings and expenses, maintaining a budget, and avoiding debt.
- **Investment and Banking:**
- Like any other industry, automation is having a significant impact on the world of finance. With websites for lower cost banking and financial planning, fintechs are now prepared to challenge established investment banking models. The companies began to pursue and invade the business models of major investment banks. They began looking into small company lending, asset management, and private investment.

Fintech in India:

According to the KPMG 2016 report, India is developing into a dynamic ecosystem that offers financial start-ups a platform to possibly become unicorns worth billions of dollars. Fintech start-ups in India are aiming for a variety of goals, from tapping into new markets to investigating overseas ones. According to NASSCOM, the Indian fintech software market would grow from its current USD 1.2 billion to USD 2.4 billion by 2020. The historically cash-based Indian economy has reacted favorably to the fintech possibility, which was primarily brought on by an increase in e-commerce and widespread smartphone use. A five-year CAGR of 22% is expected to increase the transaction value for the Indian fintech sector from an estimated USD 33 billion in 2016 to USD 73 billion in 2020. In 2015, investors' focus was mostly on high-tech cities. Bengaluru had eleven VC-backed investment deals totaling USD 57 million; Mumbai and Gurgaon followed with nine and six deals, respectively. The Indian start-up capital of Bengaluru, which is currently ranked 15 among the world's main start-up cities, has benefited from this. India's growth surge may not yet be on pace with its international equivalents, but it is well-positioned, in large part because of a solid talent pipeline of readily available and reasonably priced tech workers. The services of fintech have completely changed how businesses and consumers conduct everyday transactions, from wallets to loans to insurance. These trends are being adopted more widely, making India a more appealing market internationally.

Fintech adoption in India:

According to EY's FinTech Adoption Index 2017, India has advanced to become the market with the second-highest FinTech adoption rate (52%) among 20 economies globally. FinTech adoption in India has expanded dramatically over the last two years. This is true for all five categories of services, with digitally active Indian customers showing adoption rates that are 50% to 100% greater than averages worldwide. (2017) EY FinTech Adoption Index

Figure 04 showing Fintech adoption among digitally active consumers

Major types of Fintech companies:

Financial technology firms can be divided into two main groups, Competitive Fintech Ventures and Collaborative Fintech Ventures, according to Accenture. According to Accenture's most recent research from 2016, the competitive fintech companies are those who will directly hinder and threaten the financial services businesses. These businesses have had a lot of success over the years by concentrating on offering their clients fresh experiences and advantages with technology products rather than aiming for high profits. For instance, eToro's expert business tactics with the chosen pricing are intended to help, guide, and help retail investors by offering the best possible solutions. Additionally, Square has improved and developed the card service to optimize benefits for small businesses. 2016 Accenture also emphasizes the value of collaborative fintech companies in advancing the modernization of financial institutions, on the other hand. The Collaborative Fintech Ventures actually see the current financial institutions as prospective clients. As a result, they constantly work to cooperate, support, and offer solutions to help these financial institutions' positions and interests in the market. For instance, to bring about a new and more sustainable development in the future, collaborative fintech firms assist financial institutions in innovating their products and services as well as disrupting their established business models. Through innovation and the use of high-tech goods, they also assist financial institutions in optimizing their current operations, reducing expenses, and streamlining both internal processes and daily financial services (Accenture, 2016).

List of top Fintech companies in India:

FinTechs	Segment	Total funding (US$ M)	Total funding (INR Cr)
PayTM	Mobile VAS (Payments - Wallet)	1,000	7,177
Cred	Consumer App - Payments - Credit Card Rewards	120	826
Acko	Insurance - General	101	457
InCred Finance	NBFC	86	600
BharatPe	Online Services (Payments - UPI)	66	460
Biz2Credit	Online Services (Marketplace - SME Loans)	52	364
Perfios Software	Enterprise Software (Analytics - Credit Assesment)	50	358
OfBusiness	NBFC (SME Loans)	45	320
NiYO	Online Services (Neo Bank)	35	245
Open Financial Technologies	Online Services (Neo Bank)	35	239
Aye Finance	NBFC	33	234
Lendingkart	NBFC (SME Loans)	33	233
Mswipe Technologies	Mobile VAS (Payments - PoS)	31	219
Pine Labs	IT Products & Services (Payments Processing)	30	210
Rupeek	Online Services (Lending - Gold Loans)	30	212
IndWealth.in	Wealth Management	30	206
Groww	Online Services (Personal Finance - Mutual Funds)	28	154
Drip Capital	NBFC (SME Loans - Trade Finance, Factoring)	25	173
Upstox	Broking	25	178
Digit	Insurance - General	24	165

Above image showing Top FinTech's Fund raise in 2019

Challenges and future perspectives:

- Following the demonetization of notes, acceptance of different cashless payment methods was observed in India. Everyone was urged to use cashless technology including digital wallets, online banking, and mobile point of sale by the government itself (POS).
- The Aadhaar card, eKYC, UPI, and BHIM had reorganized the Indian banking system. According to reports, digital transactions increased by up to 22% in India after the 500 and 1000 note ban, while FinTech startups like PayTM had a 435% increase in website and app traffic. Due to the numerous growth potential, this resulted in the expansion of numerous FinTech start-ups in India.
- Many government start-up policies have aided digital finance companies. The Reserve Bank of India also permitted a simple method for launching a FinTech start-up. The government is also offering start-up businesses financial aid up to $1 crore. Customers began to accept the virtual currency for both private and business purposes.
- Many government start-up policies have aided digital finance companies. The Reserve Bank of India also permitted a simple method for launching a FinTech start-up. The government is also offering start-up businesses financial aid up to $1 crore. Customers began to accept the virtual currency for both private and business purposes.
- The financial structure of Indian banks and financial institutions evolved as a result of different economic shifts, and digital wallets were made a requirement for payment transfers.
- The fusion of IT and finance increased the value of virtual currencies like Bitcoins. The use of cryptocurrency and the block chain system sped up the processing of digital payments.
- The emergence of even small FinTech start-ups was facilitated by banks like HDFC, Federal Bank, etc. linking their formal digital transactions with small startups in India like Startup Village.
- The traditional banking and finance sector was modernized, which resulted in more consumers, shorter wait times, and the ability to offer them rapid and efficient services.
- The fintech sector also has several difficulties, such as it being more difficult for entrepreneurs to enter the expanding stage of the business cycle. Although the rate of collaboration and acceptance is fairly low, it is increasing as a result of a 59% rise in digital payments.
- Integration of numerous other methodologies, such as blockchain administration, and cryptocurrencies are no longer in a niche state in India. The recruiting of tech talent and regulatory transparency are two of the major concerns facing the Indian FinTech industry.

Conclusion:

The findings of this study demonstrate how the Fintech industry is changing India's financial services and the world's fastest-growing fintech market is in India. According to NASSCOM, the Indian fintech software market is expected to grow from its current USD 1.2 billion to USD 2.4 billion by 2020. The historically cash-based Indian economy has reacted favorably to the fintech possibility, which was primarily brought on by an increase in e-commerce and widespread smartphone use. A five-year CAGR of 22% is expected to increase the transaction value for the Indian fintech sector from an estimated USD 33 billion in 2016 to USD 73 billion in 2020. The fintech industry is a focus for the Indian government, which also supports it and promotes new concepts and inventions. In the financial sector, fintech is a new idea. Fintech services in India are more safe and user-friendly, giving the Indian economy a greater advantage. Their costs for financial services are reduced by the fintech services. There are numerous Fin Techs rising in India across all financial services areas. It is evident from the rapid development of fin technologies that India has tremendous entrepreneurial potential. Nearly half of the 1500 Fin Tech startup companies currently active in India were founded in the previous two years. Fintech companies require excellent technological and financial grooming. The majority of profitable startups can be found in the payments industry, and it is anticipated that this trend will extend to other financial sectors as well. The government and other regulatory agencies need to take additional steps to support the fin tech industry. The future for fintech in India is still positive, despite some worries about regulatory clarity and decreased deal valuations in 2016, both nationally and internationally. In the future, regulatory backing, financial inclusion, and the digitization of industry services are projected to enhance investment and hasten the adoption of innovative technologies in the financial services sector.

References:

1. Accenture 2016 Fintech and the evolving landscape: landing points for the industry. Available:http://www.fintechinnovationlablondon.co.uk/pdf/Fintech_Evolving_Landscape_2016.pdf Accessed 28 September 2016
2. Accenture the Rise of Robo-Advice Changing the Concept of Wealth Management. Available:https://www.accenture.com/_acnmedia/PDF-2/Accenture-Wealth-Management-Rise-of-Robo-Advice.pdf. Accessed 10 November 2016
3. Anikina, I.D., Gukova, V.A., Golodova, A.A. and Chekalkina, A.A. 2016. Methodological Aspects of Prioritization of Financial Tools for Stimulation of Innovative Activities. European Research Studies Journal, 19(2), 100-112
4. Bachmann, A. –Becker, A. – Buerckner, D. – Hilker, M. – Kock, F. – Lehmann, M. – Funk, B. (2011): Online peer-to-peer lending-a literature review. Journal of Internet Banking and Commerce, 16(2), p. 1
5. Bhandari, M. (2016): India and the Pyramid of Opportunity. In: The FinTech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries, p. 81-83
6. Boons, F. – Lüdeke-Freund, F. (2013): Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. Journal of Cleaner Production, 45, p. 9-19
7. Boons, F. – Wagner, M. (2009): Assessing the relationship between economic and ecological performance: Distinguishing system levels and the role of innovation. Ecological Economics, 68(7), p. 1908-1914
8. Chesbrough, H.W. (2007): Business model innovation: it's not just about technology anymore. Strategy & Leadership, 35(6), p. 12-17
9. Dahlander, L. – Gann, D. M. (2010): How open is innovation? Research Policy, 39(6), p. 699-70
10. Desai, F. (2015): The Fintech Boom and Bank Innovation. Forbes, https://www.forbes.com/sites/falgunidesai/2015/12/14/the-fintech revolution/#1202f56249d0
11. Doganova, L. – Eyquem-Renault, M. (2009): What do business models do? Innovation devices in technology entrepreneurship. Research Policy, 38(10), p. 1559-1570
12. Douglas, J. L. (2016): New Wine Into Old Bottles: Fintech Meets the Bank Regulatory World. North Carolina Banking Institute, 20(1), p. 17
13. Enkel, E. – Gassmann, O. – Chesbrough, H. (2009): Open R&D and open innovation: exploring the phenomenon. R&D Management, 39(4), p. 311-316
14. Federal Reserve Bank of San Fransisco (FRBSF) (2012): Is the Fed still in the business of processing checks? http://www.frbsf.org/education/publica-tions/doctor-econ/2012/april/check-processing
15. Future of Fintech in India - Opportunities and Challenges. (2018, November 29). Retrieved from https://www.india-briefing.com/news/future-Fintech-india-opportunities-challenges-12477.html/
16. Haas, P. – Blohm, I. – Peters, C. – Leimeister, J. M. (2015): Modularization of Crowdfunding Services: Designing Disruptive Innovations in the Banking Industry. Association for Information Systems
17. InLee et.al." Fintech: Ecosystem, business models, investment decisions, and challenges" Business Horizons, Volume 61, Issue 1, January–February 2018, Pages 35-46
18. Jutla, S. – Sundararajan, N. (2016): India's FinTech Ecosystem. In: The FinTech Book: The Financial Technology Handbook for Investors,

Entrepreneurs and Visionaries, p. 56-57

19. Kim, Y. – Park, Y. J. – Choi, J. (2016): The Adoption of Mobile Payment Services for Fintech. International Journal of Applied Engineering Research, 11(2), p. 1058-1061
20. Mas, I. – Radcliffe, D. (2010): Mobile payments go viral: M-PESA in Kenya. Capco Institute's Journal of Financial Transformation, No. 32, p. 169-183
21. McKinsey & Company (2015): Cutting Through the FinTech Noise: Markers of Success, Imperatives for Banks. McKinsey & Company, 18 p
22. Osterwalder, A. – Pigneur, Y. (2010): Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. New York: John Wiley & Sons
23. Pendyala John Adinarayana, B.KishoreBabu (2019) The Role of Shaping Fin-Tech Services: Social Media Marketing, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-10 August, 2019.m p.no. 1720-1723
24. PwC (2016): Global Fintech Report, Blurred lines: How fintech is shaping the financial world? London: PwC
25. Shontell, A. (2012): Meet the 10 Billionaires of the Facebook IPO. Business Insider. http://www.businessinsider.com/meet-the-10-billionaires-of-the-facebook-ipo-2012-5?op=1UDIES RTICLES
26. Svetlana Saksonova, Irina Kuzmina-Merlino., "Fintech as Financial Innovation – The Possibilities and Problems of Implementation" European Research Studies Journal Volume XX, Issue 3A, 2017
27. Van der Kleij, E. (2016): Tech Giants Becoming Non- Bank Banks. In: The FinTech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries, p. 31-33.