



A study on significant insights and theoretical assimilation on fintech services with respect to revolutionized finance sector in Indian context

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Abstract:

Fintech is the newest buzzword in the financial industry. The most recent evolution of Fintech, driven by startups, presents challenges for market participants and regulators alike, particularly in balancing the potential benefits of innovation with the potential risks of new financial sector techniques. Traditional financial institutions now use fintech. The phrase "fintech" refers to the expanding technical advancements in the financial industry. The financial sector is becoming more and more shaped by fintech. This research study examines the adoption of fintech, the fintech news network, the structure of the Indian fintech industry, fintech startups in India, and fintech trends in India. India has shown evidence of a remarkable change in the most fundamental aspects of human life as a result of technological advancements. Every person has some exposure to various forms of technology and its contemporary tendencies. The enigmatic new word FinTech is one of the driving forces in the Indian financial sector. By challenging the traditional financial institutional framework's very existence, FinTech enterprises have indicated a significant transformation in the management of financial offerings. Additionally, a number of issues involving coercion have come to light, and questions have started to surface questioning the impact of FinTech on the Indian Financial System. The prior pieces of data imply that study may have missed how FinTech has affected the Indian financial sector. FinTech is the use of digital technology to the financial industry and the introduction of new technologies into financial services. The research issues have undergone theoretical study. PwS, KPMG, RBI, and SSRN have all gathered the data. The report details the historical development of fintech and the size and expansion of the market. Additionally, the benefits and drawbacks of the Fintech industry, the Fintech hub, and Indian Fintech legislation.

Keywords: Fintech services, financial offerings, financial industry, historical development, Indian Fintech legislation, contemporary tendencies

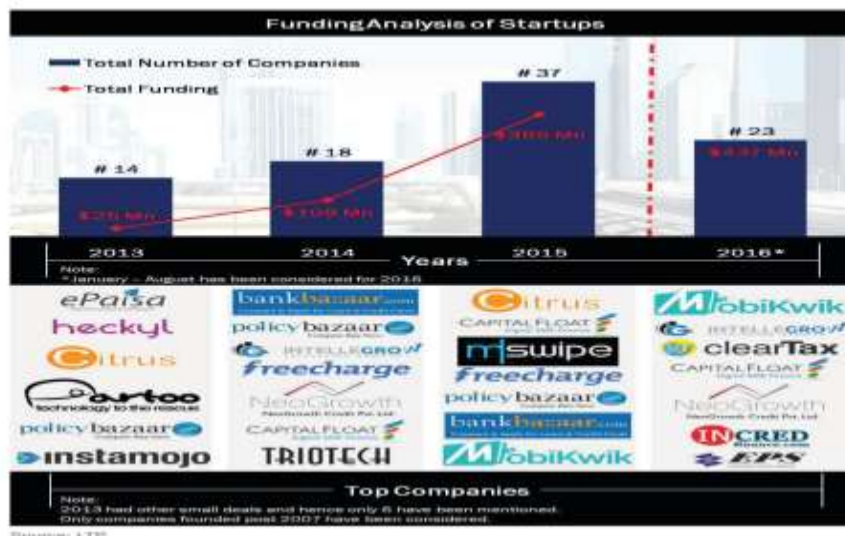
Introduction:

Although the interaction of information technology and financial services is not a new concept, fintech is short for financial technology (Service, P. B. 2019). In recent decades, there has been a lot of discussion about it (Thakor, A. V., 2019). Fintech has become a hot topic in the financial business and the scientific and technological community due to the extensive application and development of information technology in the financial sphere (S. Mei et al., 2018). According to Elsevier (2018), Fintech and the Remaking of Financial Institutions examine the disruptive potential of new competitors and business model

developments. According to Lee, I., and Shin, Y. J. (2017), fintech is a disruptive innovation that has the potential to revolutionize established financial markets. Key actors in the global financial sector have embraced a wide range of emerging Fintech sub-sectors. The Indian financial services industry has started its digital transformation and is quickly catching up to its international competitors in terms of adoption. Around the world, a number of Fintech hubs have emerged, including those in the U.S., the U.K., Israel, Singapore, Hong Kong, and Sydney, to mention a few. These hubs could serve as a benchmark for the development of Fintech in emerging economies. (Indian

Fintech) One of the world's Fintech markets with the quickest growth rates is India. Together with China, India has the greatest adoption rate of fintech internationally. According to BFSI, the \$65 billion in digital payments predicted in 2019 would increase at a CAGR of 20% until 2023. Startups that provided digital cellphone recharges had a significant part in launching the development of Fintech in India. Indian consumers have historically used coupons purchased from retail stores, primarily in cash, to recharge their prepaid mobile phones. This progressed to digital recharges, which later led to the development of digital wallets and the use of wallets for a variety of other commercial endeavors. The fact that these new products have had a significant impact on consumer behavior has drawn interest from more tech-savvy people as well as a lot of investment. According to a study of Indian Fintech startups established after 2007, investments increased from USD 25 million in 2013 to USD 109.1 million in 2014 and USD 364.6 million in 2015. It's interesting to note that Fintech businesses are receiving funding outside of mobile wallets. In the areas of lending, payments, insurtech, blockchain, and regtech, India now boasts approximately 600 fintech businesses. With initiatives like targeted accelerator programs by local and regional governments and banks, as well as funding backing from top corporations and venture capitalists, this number is anticipated to increase even higher. Only recently have segment-focused VC firms or the segment-focused divisions of VC firms started to explore India's Fintech possibilities. In contrast, mature countries

like the USA are home to VC firms that specialize in Fintech, including Ribbit Capital, QED Investors, Nyca Partners, and others. The lack of segment-focused VC firms does not, however, imply a lack of financing for Indian Fintech startups since VC firms there have made investments in a variety of sectors, including Fintech. For instance, Sequoia Capital and Matrix Partners have backed firms in Fintech, e-commerce, and taxi aggregators. Given the enormous potential for cross-industry expansion, both of these investors anticipate larger returns. There are now more cabs on the road in India because to the advent of cab aggregator services, which have increased demand for loan options that include vehicle financing. The need for payment services has increased as a result of the increasing digital penetration and the use of wallets to facilitate commerce transactions. This type of cross-industry expansion has encouraged VC firms to make investments in several sectors. Goldman Sachs launched early-stage discussions with Indian Fintech firms in January 2016 with a potential investment of up to \$10 million. Other banks, including State Bank of India, the largest national bank in India, have established innovation centres or accelerator programs to draw companies. These banks join foreign financial institutions like Goldman Sachs, Barclays, and Citi in this effort. Sequoia, SAIF, Matrix Partners, IDG Ventures, and other well-known international investors have placed a few significant bets in the Fintech sector, including MobiKwik, Citrus Payments, and Bankbazaar.com.



Above image of funding analysis of startups

One of the many other intriguing Fintech businesses that have received funding is Capital Float, which offers loans to SMEs after evaluating their financial histories through collaborations with e-commerce companies. Between 2014 and 2016, Capital Float raised money in three waves throughout the course of the years. E-commerce's expansion and the need for loans for SMEs have both contributed significantly to this increase. The business has made it possible for online retailers to finance their expansion, which benefits the e-commerce companies and helps them develop deeper alliances with Capital Float in the long run. Bankbazaar.com is another business that has been attracting investors. It is an application-based end-to-end financial service provider. To meet the demands of the customer, the organization gathers and compares financial goods from banks. Additionally, the organization assists in gathering the KYC-related paperwork and submitting it to the banks, simplifying the application procedure for both customers and the banks. They make money by receiving commissions from banking product applications. The Fintech startup Citrus Pay is also notable for the release of "Selfie," which enables individuals and small businesses to advertise, sell, and receive payments on social networks and instant messengers, hence promoting social commerce. Finally, ZestMoney has introduced an on-demand rapid credit solution to appeal to the high number of clients without a credit card (only 10 million individuals in India have a credit card). This increases the youthful population's purchasing power because they now have access to credit cards. As a result, the development of a thriving Indian Fintech ecosystem has involved both investors and startups. However, they have entered an area where the Indian government, regulatory agencies, and financial infrastructure have historically had a significant effect.

Review of Literature:

“ There has been an explosion of new financial technology (Fintech) worldwide,

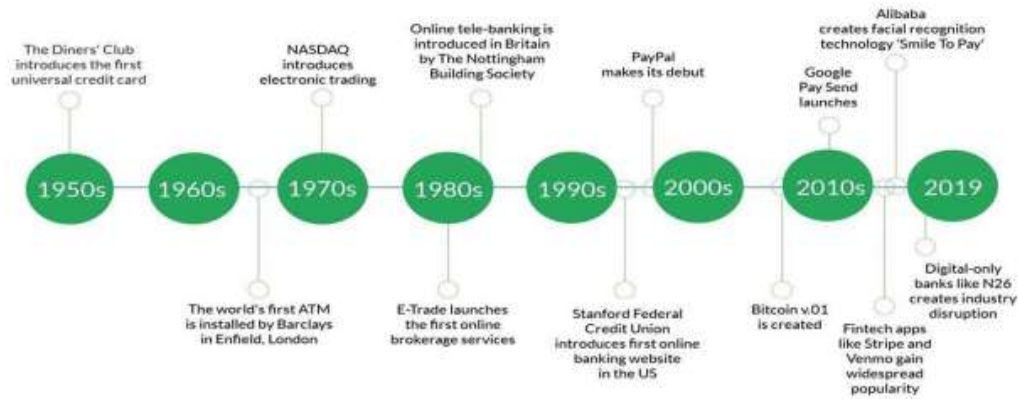
according to Kavuri, A. S., and Milne (2018). As a result, over the past five years, academic writing on Fintech has significantly increased. There is typically no clear study aim and little connection across studies. There are still significant research gaps and crucial questions. Prior to this field being a recognized academic discipline, significant effort remains. A. V. Thakor (2019) this essay examines the relationship between fintech and banking. Fintech encompasses advancements in payment methods (including cryptocurrencies), credit markets (including peer-to-peer lending), and insurance, with a focus on smart contracts supported by blockchain technology. Allen and others (2020) the blockchain in particular has the potential to disrupt financial systems and intermediation. Our goal in this paper is to present a thorough assessment of the Fintech literature together with pertinent research papers and policy discussion regarding different Fintech-related topics.

What is Fintech?

Any application of technology in financial services to create or enhance goods and services is known as fintech. While the first ATM was introduced in the late 1960s, the word "fintech" actually came to refer to the quick redesign of financial services that occurred in the wake of the Global Financial Crisis in 2007–2008. Since then, we have witnessed the deployment of new technology to launch a variety of new banking and lending products that are become faster, less expensive, and more accessible (Barry, E., 2020).

Evolution of Modern Fintech:

Any innovation that includes financial transactions, whether for personal or professional usage, falls under the umbrella of financial technology. Fintech used to be exclusively associated with the back offices of banks or stock trading firms. The growth of mobile computers and the Internet boom have made Fintech a perpetual global revolution. In today's digital age, fintech has undoubtedly taken on a significant role. It is positioned to continue growing in use and influence thanks to an expanding family of powerful technical tools for personal and business finance (Andre, L., 2019).



(Source: Abhishek Soni/Medium.com, 2019)

Above image showing evolution of modern fintech

Fintech Market outlook:

Fintech, also known as financial technology, is a new innovation that is gaining traction and displacing traditional financial services in a number of industries, including banking, payments, e-commerce, social trading, wealth management, and others. Due to the fact that e-commerce is spreading quickly over the world, it is the primary application market for fintech, with a projected CAGR of 10% to 12% from now until 2025 (<https://www.industryarc.com>).

Evolution of Fintech in India:

India, a nation of more than 1.3 billion people, is moving toward a radical and disruptive combination between technology and finance. This partnership between finance and technology is evolving and improving operations. Fintech is primarily a collection of financial technologies that provides more efficient financial solutions than traditional banks. The banking sector was where fintech first began operating. This industry has experienced enormous growth in recent years, spreading its wings to include the asset management and insurance sectors. These days, Fintech firms use cutting-edge technology like machine learning and artificial intelligence to analyze customer behavior trends. The banking and finance industries in India have also benefited from the wonders of financial technology. This is a step toward establishing a cashless society in cash-dependent India. It has altered how consumers conduct daily transactions and manage their money thanks to a variety of Fintech services and Fintech software. (Author Information) One of the top high potential industries in the ecosystem, according to a NASSCOM assessment on

Indian startups, is fintech. The primary industries driving the growth of the Indian fintech market are lending, wealth management, banking, and insurance (Mukewar, P., & Community. 2020). While wallets collapsed as a result of UPI, lending Fintechs and insurance tech thrived. Due to Mutual Funds' direct plans, the wealth management industry faced difficulties (Singh, S. 2020). Mobile wallets, apps, and other consumer-oriented technology products are rapidly becoming more popular in India thanks to the Fintech sector's focus on the banking experience for the general public. Only a small number of startups have concentrated on the systems and procedures used in back-end banking (The Evolution of Fintech in India).

Market size and growth:

According to the Nasscom-KPMG analysis, the Indian market for Fintech software and services was over \$8 billion in 2016 and is expected to increase by 1.7 times by 2020. The report also notes that, at a compound annual growth rate (CAGR) of 22% over the next five years, the transaction value for the Indian Fintech sector will increase from an estimated \$33 billion in 2016 to \$73 billion in 2020. (Feb 11, 2.) According to Accenture, Fintech investments in India nearly doubled to \$3.7 billion in 2019 from \$1.9 billion the previous year, making it the third-largest Fintech hub in the world behind the United States and the United Kingdom (Mandavia, M, 2020).

Fintech Hub in India:

The government of Maharashtra is the first state in India to establish a Fintech strategy (declared in February 2018) to aid the industry with the goal of turning Mumbai into a centre for Fintech worldwide. Financial institutions, regulators,

governments, technological partners, academic institutions, research laboratories, incubators/accelerators, industry groups, and market influencers are some of the major parties involved in this journey (About Us). The top two Fintech centres in India are Mumbai and Bangalore, which together are home to about 42% of companies. Mumbai has emerged as the country's main Fintech hub. Six of the top 100 Fintech cities in the world are located in India, according to the "Global Fintech Index 2020." Bangalore, Mumbai, New Delhi, Pune, Hyderabad, Chennai, and Ahmedabad are some of these (India is establishing itself as a Fintech centre). According to the Fintech Country Rankings, India came in at number 15, and 11 Indian cities were included in the top 20 cities in the Asia-Pacific region (Rawat, A., & Staff, I. 2019).

Fintech startup in India:

A strong wave of technology improvements and the introduction of new FinTech businesses are principally driving India's continued increase in FinTech expansion. (<https://ibsintelligence.com/>) With capital growing at a CAGR of 98% over the previous six years, the FinTech sector in India has experienced a financial boom in the last five years. According to <https://www.startupindia.gov.in>, there are already over 1200 active FinTech businesses in the nation, and their number is constantly increasing. India is the second-largest fintech cluster in the

world, with 2,565 startups functioning as of today, up from just 737 in 2014. Payments make up the largest portion of fintech firms in India, followed by lending, wealth technology, personal finance, insurtech, regtech, and other areas. (Ashwini.,2020) The following categories make up the Indian FinTech scene: 34% go to payment processing, 32% to banking, and 12% to trading, open, and private markets. In order to promote the interests in this region, Visakhapatnam is being developed as a FinTech valley, and the neighboring Andhra Pradesh government opened Fintech Valley (Shrivastava, D. 2020). In the nation, there have been more Fintech transactions. India saw 23 agreements in the second quarter of 2019, while China had 15 deals during the same time. Some of the significant Indian Fintech deals in 2019 include a digital insurance (<https://www.mordorintelligence.com>) and the

payment company RazorPay, which raised USD 75 million in June from Sequoia and Ribbit Capital. According to a KPMG report (<https://www.businessinsider.in>), India's fintech startups have raised nearly \$1.7 billion in the first half of 2020, more than doubling the \$726.6 million raised in the same period last year. India will contribute 2.2% to the global market for digital payments by 2023, and the value of these transactions is anticipated to reach \$12.4 trillion globally by 2025 (<https://www.investindia.gov.in>). To foster a collaborative and consolidated environment, financial institutions, startups, the government, venture investors, and regulators must work together. The research provides a look of three developing themes: open banking, artificial intelligence, and blockchain, which have the potential to alter the financial services sector in India, with KPMG in India and NASSCOM 10000 Startups expertise in the fintech sector (<https://nasscom.in/knowledge-center/publications/fintech-india---powering-digital-economy>).

Artificial Intelligence in Fintech:

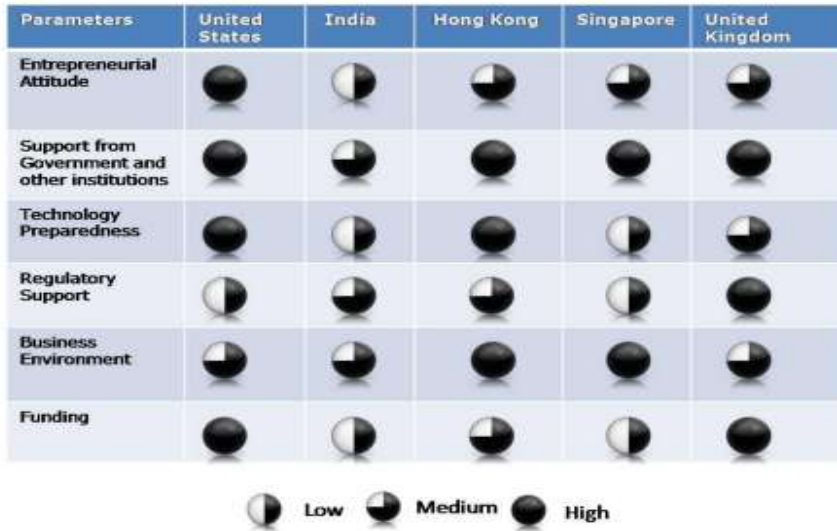
The financial sector has undergone a revolution thanks to artificial intelligence (Hill, K., 2020). Few industry titans had the capacity to handle the intrinsically quantitative nature of our modern, tech-savvy society before AI and the emergence of FinTech. These AI use examples explain how AI has revolutionized the FinTech industry. (Buttice, C., 2020) FinTech businesses and financial institutions utilize AI and machine learning to boost productivity and offer customers more pertinent, reasonably priced, and understandable financial services and products to satisfy their banking demands. 2020 (Darcy Tyrrell).

What makes Fintech in India unique?

India has experienced recent growth in the fintech industry. However, India's recent emergence as an economic powerhouse makes comparisons to these economies more challenging than with more advanced markets in Europe and North America. India's fintech industry is distinct since it is new, expanding quickly, and supported by a sizable market. India offers an appealing market for technology businesses, with internet and mobile usage predicted to rise quickly from 53% in 2014 to 64% in 2018. In India, the market for financial services is

largely untapped because more than 80% of transactions are still cash-based and 40% of the population does not currently have access to banks. Consumer lending, insurance, trade finance, digital payments, and many more categories all have a strong possibility to see a big growth in demand thanks to the

untapped Indian Fintech industry. New Fintech products have the potential to considerably boost market growth in each of these sectors. The Indian Fintech market does, however, have a stronger presence in a few areas.



Above image showing comparing India versus other Fintech hubs globally

Some of the key characteristics of the Indian market that make it exciting and interesting for Fintech startups are:

1. The only Fintech hotspot that offers numerous opportunities to target a sizable unbanked population is India. India is a desirable location for Fintech businesses due to its expanding young population and openness to new technologies.

2. The challenging process of altering consumer behavior so that they will accept Fintech solutions is already under progress.
3. India has a strong talent pool of technically skilled workers that are relatively inexpensive and simple to hire thanks to the country's high degree of technical education.
4. In terms of deal size and volume, India has the second-largest startup ecosystem in APAC behind China.



Above image showing Fintech Funding in India

Blockchain in Fintech:

Blockchain development businesses in this field have a significant edge going forward as fintech disrupts the banking system (Shah, P., 2019). The importance of Blockchain was recently mentioned in a report published by the steering group on Fintech-related problems, by the Ministry of Finance, Government of India, with a special mention to four uses of blockchain in Fintech (Jacob, C., 2020). Blockchain technology is revolutionizing the fintech sector in a variety of ways, including by getting rid of middlemen, cutting down on operational expenses and time, improving identity verification, etc. (Srivastav, S., 2020).

Cloud computing in Fintech:

Cloud infrastructure gives FinTech businesses complete control over scaling up and down while maintaining regulatory compliance. 2020 (Naser, A. T.) With the use of cloud technology, FinTech continues to grow significantly and steadily. FinTech boosts service portfolio and user experience while lowering CAPEX and OPEX expenditures (Ray, T., 2020).

NLP Based Chatbots:

According to PwC India, Fintech will reinvent mobile banking by utilizing NLP-based chatbots and cutting-edge Conversational User Interface (CUI). By responding to consumer issues and offering workable answers in real-time, these chatbots will improve the customer experience

(<https://bfsi.economictimes.indiatimes.com>).

Conclusion:

According to <https://www.fintechindiaexpo.com>, fintech is a new financial sector that uses technology and innovation to supply financial services via novel applications, workflows, products, or business models. Since India has an unmatched youth population that is rapidly expanding, fintech there is very attractive. Additionally, it's expected that smartphone penetration would increase, rising from 53% in 2014 to 64% by 2018. With 40% of the population having no bank affiliation and more than 80% of transactions taking place in cash, India's financial services sector remains mostly untapped. Fintech start-ups have the chance to greatly expand their reach in several industries thanks to this (<https://www.makeinindia.com/>). Big data,

complicated AI/ML algorithms, and advanced technology have benefited both borrowers and lenders. Fintech has the ability to disrupt industries and produce new kinds of risk. Global regulators are working actively and carefully to safeguard consumers, uphold financial stability, and foster a climate that is safe for Fintech advances (Jagtiani, J., & John, K., 2018) To improve the framework conditions linked to customer trust, regulation, and scalability, however, is a key component of the future of fintech (Mention, A., & Management, S. O.). Due to the strong national character of inclusive finance, fintech is crucial for the financial sector's future. Big data, complicated AI/ML algorithms, and advanced technology have benefited both borrowers and lenders. Fintech has the ability to disrupt industries and produce new kinds of risk. Regulators around the world are working diligently and carefully to safeguard consumers, maintain financial stability, and foster safe Fintech innovation environments (Jagtiani, J., & John, K., 2018). To improve the framework conditions linked to customer trust, regulation, and scalability, however, is a key component of the future of fintech (Mention, A., & Management, S. O.). Since inclusive finance is a major driver of national economic growth, fintech is crucial for the financial sector's future. The financial industry is changing due to fintech. Fintech refers to new financial technology concepts. Financial services including online buying, money transfers, receiving funds, and time-saving tasks are now at the next level thanks to fintech. Economic growth is a result of fintech for both consumers and businesses. The financial industry is changing due to fintech. Fintech refers to new financial technology concepts. Financial services including online buying, money transfers, receiving funds, and time-saving tasks are now at the next level thanks to fintech. Consumers and businesses both benefit from fintech.

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