



A STUDY ON IMPACT AND ENACTMENT OF FINTECH IN INDIA

Santosh Kumar* Dr. Sumita Sinku**

**Research Scholar, Department of Commerce, Mahatma Gandhi Central University, Motihari, Bihar.*

***Assistant Professor, Department of Commerce, Mahatma Gandhi Central University, Motihari, Bihar.*

Abstract

The integration of financial services and information technology has transformed India's financial system. In the current context, information technology has been established as a major element for the financial industry's growth termed as "FinTech - Financial Technology" that describes how the financial industry uses technological advancements to improve the quality and convenience of services to customers. Fintech refers to the legitimate use of technology to provide new financial goods and services to new market segments in a cost-effective manner. It refers to technology enabled financial innovation that results in new business models, applications, procedures, or products, all of which have a meaningful impact on financial markets, institutions, and financial services.

India's FinTech ecosystem has experienced tremendous expansion in recent years, making it one of the largest and fastest-growing fintech marketplaces in the world. India had led Asia-Pacific (APAC) countries in FinTech investment in 2020. From tapping new segments to exploring overseas markets, India is evolving into a dynamic environment that offers Fintech start-ups a platform to grow into billion-dollar unicorns. As a result, FinTech is increasingly becoming a focal point of interest for all important stakeholders in India's financial industry.

The goal of this paper is to describe the concept and necessity for fintech in the financial industry, as well as the pillars that make up the fintech ecosystem and the services that fintech provides. The study will also look at the benefits and drawbacks of fintech, as well as the constraints and challenges that fintech faces in India.

The study concludes that fintech has a significant impact on numerous sectors of the financial system. This business has seen remarkable growth in India over the last few years which has aided the growth of the financial sector that has ultimately boosted the economy. The FinTech sector is predicted to grow at a compound annual growth rate of 22% over the next five years, and India is now the world's third largest FinTech ecosystem, behind the United States and China.

Keywords: *Information Technology, Fintech, Financial sector, Govt & Fintech ecosystem.*

Introduction

The term 'Fintech,' (financial technology), refers to a sector made up of businesses that employ technology to supply financial services more efficiently. It is a new sort of service in the twenty-first century. By utilising technology in the financial sector for mobile payments, loans, money transfers, and even asset management, new start-up organisations are attempting to replace the existing transaction system with new, more effective techniques. Peer-to-peer lending, peer-to-peer payment technology, digital wallets, Block chain, and mobile banking are some other examples of technology



used in financial transactions. These are aimed at providing additional benefits and increasing the efficiency of financial transactions. They also aid in the reduction of client costs.

India's FinTech ecosystem has experienced tremendous expansion in recent years, making it one of the largest and fastest-growing fintech marketplaces in the world. India had led Asia-Pacific (APAC) countries in FinTech investment in 2020. From tapping new segments to exploring overseas markets, India is evolving into a dynamic environment that offers Fintech start-ups a platform to grow into billion-dollar unicorns. As a result, FinTech is increasingly becoming a focal point of interest for all important stakeholders in India's financial industry.

FinTech is an acronym for "financial technology." The technology sector is important to the financial business, but the financial industry is always at the forefront of technological advancements. These developments are critical to the financial industry's ability to increase service quality and convenience. As a result of technological improvements and breakthroughs, there have been different modifications in reasoning and execution. In the last few decades, there has been a surge in the desire for smarter, well-designed interfaces.

Financial innovation in the form of new delivery channels, products, and providers has aided in pushing the access to finance frontier further out, increasing the number of people who are bankable and banked.

India is seeing a slew of Fin Techs emerge across the financial services spectrum. The reality that India has huge entrepreneurial potential cannot be refuted based on the rate at which fin technologies are emerging. Fintech companies must be properly groomed both technically and financially. The bulk of successful startups are in the payments market, and the same is expected in other financial segments as well. The fintech industry needs to be further supported by the government and other regulatory agencies through various measures.

Review of Literature

1. Thomas Phillipon (2016) evaluated the impact and relevance of Fintech on the financial industry's stability. FinTech, according to the study, can produce a slew of regulatory issues. The finance business is associated with high expenses and ineffective laws that are less concerned with people's well-being. It is discovered that there is scope for change, but the existing regulatory strategy is unlikely to achieve this.
2. Zavolokina et.al., (2016) describe how the popular media and press perceive the FinTech conceptual framework. The goal is to educate the press about FinTech so that it may be used in scholarly publications. The research methods used were exploratory and descriptive. FinTech is not widely discussed in the scientific community, according to the findings, and it should not be limited to technology issues.
3. Asli Demircug et.al., (2017) focus on the big picture of how individuals need to invest in their futures and how far we've gone in terms of financial services availability. A survey of 1,000 people was done in around 160 economies, and various types of interviews were undertaken to examine the various financial services used by diverse groups of people. It has been discovered that digital technology alone is insufficient to enhance global financial inclusion.
4. Nicoletti (2017) explores the future of FinTech by suggesting that a lot of clients are depending on FinTech and will be the new shape of the financial industry in the future. The major goal is



to emphasise the significant benefits of FinTech activities. The most important results are new proof of economic trends.

5. Prof. Ashwini (2018) discussed about the role of Fintech in Indian banking, financial services, and financial gateways, as well as future banking in collaboration with Fintech. According to the report, the Reserve Bank is continuing its efforts to establish robust and secure payment and settlement systems in order to achieve a cashless society. India today has the best digital infrastructure for financial universalization, and the Jan-Dhan, Aadhaar, and Mobile (JAM) layer is an indigenous Indian stack that is propelling us from a data-poor to a data-rich country.
6. Chris Brummer et al., (2018) present a framework for demonstrating financial innovation oversight. They also claim that authorities do not maintain or follow all of the declared goals for making Fintech more efficient. They discovered that regulators are adapting existing tactics as well as developing new ones to meet the needs of all digital marketplaces.
7. Thakor (2019) conducted a literature review on fintech and its relationship with banking. Fintech advances include payment systems (including cryptocurrencies), credit markets (including peer-to-peer lending), and insurance, with Blockchain-assisted smart contracts playing a part. This study begins with a definition of fintech, then looks at various statistics and stylized facts before reviewing the theoretical and empirical literature. Fintech is playing a key role in the current context as well as in the digital banking system, according to the report.
8. According to William Magnuson (2019), The hazards connected with large financial institutions are overshadowed by the risks associated with decentralised financial organisations. A number of potential regulatory remedies to FinTech hazards have been identified, but no comprehensive answer has yet been discovered.
9. Priya and Anusha (2019) examine the fundamental types of financial technology and their functions, as well as the potential and difficulties they present in the Indian business environment. Fintech companies must be properly groomed both technically and financially. According to the survey, the bulk of successful start-ups are in the payments market, and the same is expected in other financial segments. The fintech industry needs to be further supported by the government and other regulatory agencies through various measures.
10. Das et al., (2020) want to look at the relationship between varied demographic profiles, FinTech acceptance, perception, user pattern, and obstacles that bank customers encounter when using FinTech services. The findings, based on a survey of 215 people, show a strong link between the use of FinTech services and various demographic features. According to the analysis, millennials and generation Z are more aware of and use these services than generation X and baby boomers. While FinTech businesses have grown in popularity in the payment arena, it has been discovered that among respondents, misperception is a significant barrier impeding the expansion of technology-based services.
11. Dwivedi et al., (2021) looked into the impact of FinTech on the banking industry's competitiveness and performance in the UAE. Based on 76 banking professionals and executives (bankers) from Dubai, the study was empirically evaluated (UAE). The data reveal that FinTech adoption has a major impact on the competitiveness and competitiveness results in the banking industry's performance in the UAE. The second finding suggests that adequate FinTech implementation and alignment with technology management have a direct impact on the banking industry's performance in the UAE.



Research Gap

After making detailed and extensive review of the available literature, some studies deal with the impact and relevance of Fintech on the financial industry's stability. Some studies included impact of Fintech on economy, challenges faced by technological entrepreneur and the role of Fintech in Indian banking, financial services and financial gateways. There is a gap in the related literature about explanation of the concept and necessity for fintech in the financial industry, as well as the elaboration the pillars that make up the fintech ecosystem and the services that fintech provides and also looking at the benefits and drawbacks of fintech and discussion of the current Fintech ecosystem of India.

Objective of The Study

- To describe the concept and necessity for fintech in the financial industry.
- To elaborate the pillars that make up the fintech ecosystem and the services that fintech provides.
- To look at the benefits and drawbacks of fintech, as well as the constraints and challenges that fintech faces in India.
- To discuss about the current Fintech ecosystem of India.

Design of The Study

The nature of the study is descriptive and exploratory and there is no use of statistical tools and techniques in this study.

Explanation of the Study

Concept of Fintech

Fintech is a blend of the word "finance" and "technology," and it refers to any company that employs technology to improve or automate financial services and operations. The phrase refers to a fast-expanding industry that serves both consumers and corporations in a variety of ways. Fintech offers a seemingly limitless number of uses, ranging from mobile banking and insurance to cryptocurrency and investment apps.

Fintech refers to the combination of finance and technology that is used to improve business operations and financial service delivery. Fintech can be defined as software, a service, or a company that uses cutting-edge technology to improve financial operations by disrupting old techniques.

Mobile payments, automated investment apps (Robo-advisors), cryptocurrencies, online lending firms, and crowdfunding platforms are some of the most well-known fintech applications.

Necessity for fintech in the financial industry

- Ongoing digital transformation, collaboration with FinTech, and the growing role of artificial intelligence and robots are all key factors driving these advances.
- As consumer tastes, demographics, and lifestyles change, banks and financial institutions should redefine themselves as agile technology enterprises.
- Many banks are looking to take advantage of the digital prospects by employing technologies in-house or working with FinTech firms. Initially, these firms were viewed as rivals exploiting the gap left by the BFS industry's inability to keep up with technology advancements.
- To prepare for a future that will be increasingly driven by technology, the banking and financial services industry is focusing on innovation.



- Today, however, bank-FinTech collaborations are becoming more common, with the latter offering marketing, administration, loan servicing, and other services that enable banks to offer tech-enabled banking products. Other benefits of bank-FinTech relationships are being discovered by banks, such as access to assets and customers. As a result, these collaborations are reshaping the financial services sector.

Pillars of the Fintech Ecosystem

1. Traditional Financial Institutions

- Traditional Banks
- Insurance companies
- Stock Brokerage Firms
- Venture Capitalists

2. Government

- Financial Regulators
- Financial Legislatures

3. Fintech Start-ups

- Payment Company
- Wealth Management Company
- Crowdfunding Company
- Capital Market Company
- Insurances Company

4. Technology Developers

- Big Data Analytics
- Cloud Computing
- Cryptocurrency
- Social Media Developers

5. Financial Customers

- Individuals
- Organisation

Services provided by Fintech

1. Capital Markets: - Financial institutions' sales and trading, analytical, and infrastructure technologies.
2. Blockchain: - Businesses that use blockchain technology to provide financial services, crypto-exchanges, and crypto-currencies.
3. Payments and billing: - Software for payment processing, card development, and subscription billing.
4. Insurtech: - Companies that sell insurance digitally and provide (re)insurers with data analytics and tools.
5. Wealth Management: - Platforms and analytics for investment and wealth management
6. Regtech: - software for auditing, risk management, and regulatory compliance
7. Personal finance: - Bill management and account tracking tools for personal and/or credit accounts
8. Lending: - Platforms for marketplace lending, microlending, and alternative underwriting
9. Remittances and money transfers: - Software for international money transfers and tracking
10. Mortgage & Real Estate: - Mortgage lending, digitization, and platform financing.



Advantages of Fintech

1. **Saving:** - It's been said that time is money, and nothing could be clearer. In this scenario, the ability to complete tasks considerably faster and through automated processes improves company productivity on a day-to-day basis (also at the user level). This relates to more than just visible financial savings.
2. **Increased Accessibility and Speed of Acceptance:** Fintech has the ability to dramatically boost accessibility and speed up the rate of approval for finance or insurance. In many cases, the application and approval procedure can be finished in as little as 24 hours.
3. **Fintech solutions are more efficient and cost-effective than traditional financial services:** - Fintech solutions benefit clients as well. Fintech solutions, by virtue of their streamlined and more user-centric approach, provide greater transparency and clarity, resulting in a better overall user experience.
4. **Transparency:** Businesses can operate in a transparent and timely manner. From your computer, you may access your home community with a single click.

Disadvantages of Fintech

1. **High cost of bearing:** In an economy like India's, where micro, small, and medium companies (MSMEs) dominate, going digital for payments can be difficult since they cannot stand the costs.
2. **Cyber security:** Defending against cyber-attacks is one of the most difficult tasks confronting businesses and governments throughout the world, and given the sensitive nature of the client data held by Fintech firms, it's a major concern.
3. **Regulations:** Managing regulatory risk and compliance is one of the most significant Fintech difficulties emerging institutions face. It's a common occurrence in the financial business, but Fintech firms are acutely aware of it.
4. **User retention and satisfaction:** - During the development of any banking software, one of the most important considerations is user experience and retention. A Fintech app should strike a balance between user experience and security: for example, ensure that access to a mobile banking app is neither too easy nor too difficult.
5. **Inadequate awareness:** - More than 70% of India's population lives in villages, and the majority of urban residents use these digital payment services. This industry must gain traction in rural India by raising awareness.
6. **Fintech is still a young participant in the Indian financial sector:** - As a result, collaborating with the country's struggling traditional financial institutions could assist the country's financial system take a new course.

Challenges of Fintech

Fintech, while its enormous potential, has a difficult road ahead of it. The following is a list of potential hurdles in the way of Fintech businesses

1. Due to the rigorous regulatory structure created to prevent frauds, it is difficult to enter and perform in the Indian market. It serves as a significant impediment to newcomers. They must complete a number of formalities before beginning operations.
2. Population without a bank account, other barriers include a lack of Internet connectivity and a low reading level. A large portion of the Indian population still lacks bank accounts, which are required for performing online purchases. Even if the people have bank accounts, they still have problems with inadequate internet connectivity, which causes the transaction to take longer to complete. As a result, individuals prefer cash transactions to online transactions. Leaving aside



the need of having a bank account and access to the internet, the majority of the Indian populace lacks the necessary financial literacy to take use of these opportunities.

3. It is extremely difficult to persuade merchants and users who conduct daily cash transactions to change their conservative attitudes. The majority of the elderly have been completing these transactions in cash for a long time, and it might be difficult to break them of their old habits and introduce them to new options at this age.
4. Various frauds resulting in the loss of money in online transactions are a bitter pill for customers to swallow. Fraudsters use technology to steal people's money, which has posed a significant issue for fintech companies. As a result, businesses must work hard to enhance infrastructure and become more consumer-friendly.
5. There is a dearth of government support and incentives in India for financial technology to defend their interests. At its most fundamental level, this demoralises business owners. They were not given the proper advice and support to get started, despite the fact that it is for the development of the country's economy.
6. Gaining investor trust in the Fin tech industry, like any other company, is difficult these days. Obtaining the necessary seed capital and other investments on time is becoming increasingly challenging, which will have a detrimental impact on operations and functioning.

Challenges in Indian fintech

1. **Lack of Fintech rules:** - While the government is attempting to ease the introduction of new financial technologies, market rules remain strict. The Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) have yet to issue comprehensive and independent fintech rules. Banking rules continue to oversee the industry. Although the RBI has recently approved small banks and payment banks, there are still several roadblocks in the way of innovative fintech businesses.
2. **Lack of access:** - The existing set of financial goods is created for the top 40 million financially knowledgeable people in the country and does not cater to the great majority of the population. Regional differences in low-income regions like Arunachal Pradesh and Mizoram in the North East, or Bihar, provide an opportunity for Fintech start-ups and incumbents to innovate and provide access.
3. **Lack of available Infrastructure:** - There is a lack of required infrastructure like technology, manpower etc needed for fintech industry in India.

Opportunities in Indian fintech

1. **Coordination of the industry:** - Fintech firms are dispersed throughout India. The lack of a single hub makes it difficult to disseminate knowledge and information. The sector performs poorly at enabling discussion, with players in Mumbai and Bangalore and no specialised industry association. NASSCOM, the industry group for the technology sector, has been active in creating a venue for early-stage companies to interface with the industry. However, Indian fintech subsectors and industries could benefit from a tight network and coordinated approach.
2. **Necessity of Innovation:** - India has the potential to become a worldwide powerhouse for inclusive growth, similar to London, Singapore, and New York. According to Yes Bank's 'India Opportunities Fintech Review 2018', 'Innovation Labs' should be established to allow Fintech companies to address the relevance of use cases to the government. The Innovation Labs will be located in Tier II/III cities in India, where they would stimulate innovation and provide direct access to the intended market.



3. **Establishment of Research Labs:** - In addition to partnering with prospective clients in the region for joint innovation initiatives, the focused Innovation Labs can produce research and technology in core market areas and allow creation of solutions for top problem areas. Bilateral collaboration agreements with other Fintech Hubs will help to build and encourage knowledge transfer.

India's Fintech Ecosystem at a glance

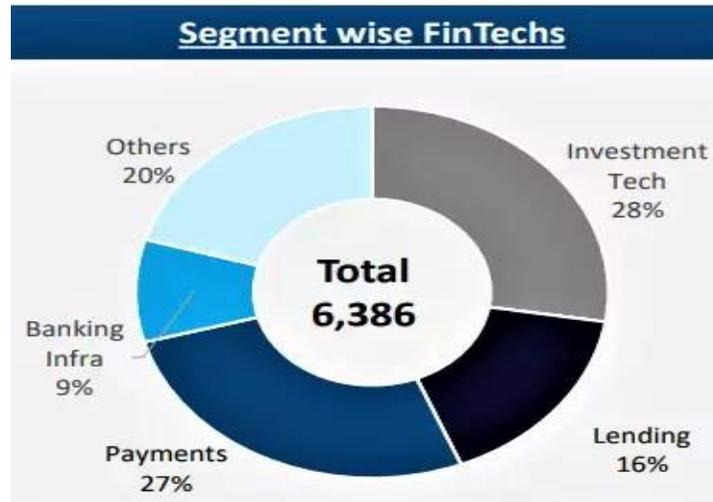
1. India has 6,636 FinTech Startups and is one of the fastest growing Fintech industries in the world.
2. The Indian FinTech business is expected to be worth \$31 billion in 2021 and \$150 billion by 2025.
3. At a CAGR of 20%, the value of Fintech transactions is expected to increase from US\$ 66 billion in 2019 to US\$ 138 billion in 2023.
4. Payments, Lending, Wealth Technology (WealthTech), Personal Finance Management, Insurance Technology (InsurTech), Regulation Technology (RegTech), and other subsegments make up the Indian Fintech sector ecosystem.
5. In FY22, India's Fintech sector received \$8.53 billion in investment (in 278 deals).
6. India's Unified Payments Interface (UPI) had 313 banks participating as of March 2022, resulting in 5.4 billion monthly transactions totalling approximately \$128 billion.
7. India has 16 Fintech Startups that have achieved 'Unicorn Status' with a worth of over \$1 billion as of April 2022.
8. A 24.57 percent CAGR in the size of the Fintech market in 2025.
9. A 25 percent increase in the number of agreements from 2018 to 2021.
10. From FY19 to FY21, digital payments transactions will expand at a 37 percent compound annual growth rate (CAGR).
11. From FY19 to FY21, the highest predicted return on investment (ROI) for Fintech projects will be 29 percent.
12. Since 2017, Investment over \$23 Billion in Fintech ecosystem.
13. Fintech adoption rate is the highest in the world (87 percent).
14. India is the world's third-largest FinTech ecosystem.

Composition of Fintech Ecosystem of India

According to BLinC Insights, the Indian financial services sector will be worth \$500 billion in 2021, with the FinTech market accounting for \$31 billion of that. The rapid growth of the FinTech sector in India is due to the country's rapid digitisation, according to the report.

The FinTech sector is predicted to grow at a compound annual growth rate of 22% over the next five years, and it is now the world's third largest FinTech ecosystem, behind the United States and China.

According to the BLinC Insights report, 28 percent of the 6,386 FinTechs are involved in investing technology, 27 percent in payments, 16 percent in lending, 9 percent in banking infrastructure, and 20 percent are involved in other industries.



There are currently 10 unicorns in the Indian FinTech industry, including Razorpay, CRED, Pinelabs, and Policybazar, 52 soonicorns, including Navi, Lendingkart, and Mswipe, and 170 Minicorns across all segments.

According to the research, 37 companies have a financing range of \$100 million to \$1 billion, 144 have a funding range of \$10 million to \$100 million, 263 have a funding range of \$1 million to \$10 million, and 339 have a funding range of less than \$1 million.

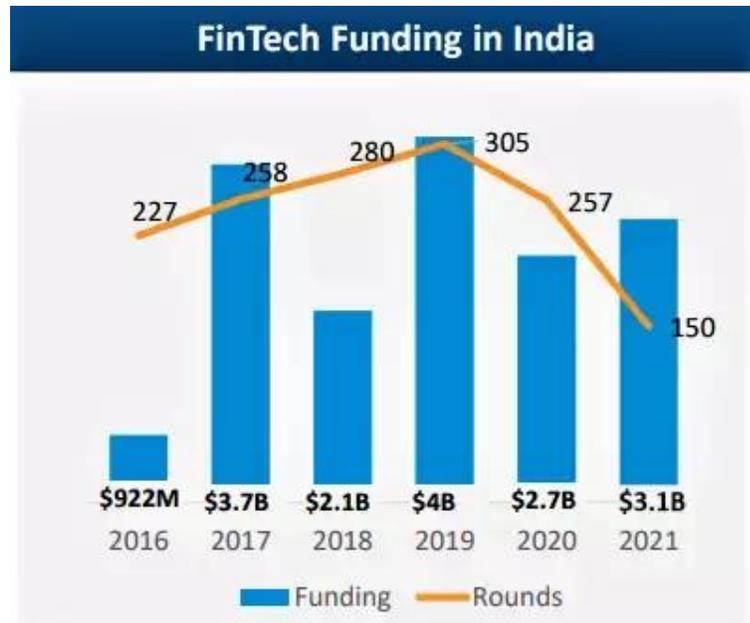
According to the report, 90% of FinTechs have yet to raise funds, owing to a lack of quality mentorship and/or operating in a space that has yet to gain traction from the investor community.

With stronger rules, digital lending is likely to grow at a higher rate, with an expected CAGR of roughly 33.5 percent by 2023, insurance at 12.5 percent by 2030, and neo-banking at 50.4 percent by 2026.

Funding of Fintech Ecosystem of India

FinTech funding totalled \$16.5 billion from 2016 to 2021, with around 60% of that coming in the last three years. In 2021, digital payments received \$0.9 billion in funding (43 rounds), digital loans received \$0.73 billion in funding (62 rounds), and investment technology received \$169 million in funding (36 rounds).

Insurtechs received \$512 million in fundraising (34 rounds), up from \$291 million (380 rounds) in 2020. Similarly, neo banking received \$159 million in 2021 (15 rounds) compared to \$33 million in 2020 (9 rounds), while other financial solutions received \$476 million in 2021 (32 rounds) compared to \$68.6 million in 2020 (33 rounds).



Fintech is a type of innovation in which the entire globe embraces a new and efficient service technique. Where banks and other financial organisations have an entire market of willing and able clients to offer better financial products/services at cheaper prices due to a combination of stronger spending power and more freedom in technological adoption. Today, technology is the primary enabler and equaliser.

As we connect one-on-one in real time, we have established massive new trade flows for markets that were previously underserved or ignored. In India, the number of cell phone subscribers has surpassed one billion. As a result, the first significant change in the network impact of financial inclusion is that millions of people who previously had no access to digital services are now connected for good. It's also encouraging to have a central bank that is as committed to modernization and technology as we are.

The study concludes that fintech has a significant impact on numerous sectors of the financial system. This business has seen remarkable growth in India over the last few years which has aided the growth of the financial sector that has ultimately boosted the economy. It has the ability to disrupt the whole financial system, and it has played a key role in recent years in fast digital transformation and the production, delivery, and consumption of financial products and services. It has aided in increasing production and is expanding its reach to customers.

India is seeing a slew of Fin Techs emerge across the financial services spectrum. The reality that India has huge entrepreneurial potential cannot be refuted based on the rate at which fin technologies are emerging. Fintech companies must be properly groomed both technically and financially. The bulk of successful Start-ups are in the payments market, and the same is expected in other financial segments as well. The fintech industry needs to be further supported by the government and other regulatory agencies through various measures.



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