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# AN OVERVIEW OF FINANCIAL TECHNOLOGY IN INDIA

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#### **Abstract**

One of the Financial Technology solution is Unified Payment Interface (UPI), this is well known. Financial Technology is commonly known as Fintech. Financial technology (Fintech) along with UPI is steadily penetrating and shaping the global financial system in the manner it operates. (Gartner) published a blog on financial technology (FinTech), 'Financial Technologies (Fintech's) are start-up technology providers that approach financial business in innovation (sometimes disruptive) ways through emerging technologies. Financial Technology (Fintech's) can fundamentally change the way in which a financial services institution's products and services are created, are distributed, and generate revenue. The term may also refer to the technologies these providers offer'. It also known for its seamless and transparent financial transaction. Due to this feature, Financial Technology (Fintech) is known as digital/disruptor in financial sector. Currently, traditional banks are collaborating with Financial Technology (Fintech); which would help them in improving competition amongst the traditional banking sectors. This partnership will also allow the traditional banks improve and develop tailor-made products and services for its existing and future customers. Due to growing importance of Financial Technology (Fintech) globally, it has attracted around US\$ 12Bn in Q2 of 2019.

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In India, there are 1,000+ start-up companies in Financial Technology (Fintech) Indian market the start-up culture was recorded a decade back but has only started gaining importance in recent years. This number is rapidly growing to cater the un-tapped Indian consumer base. Still, in India Financial Technology (Fintech) has not replaced the traditional banking system, however making in-roads as a parallel platform. The Indian banks should swiftly adopt to growing acceptance of Financial Technology (Fintech) in banking space by partnering with them for the overall betterment of its customers.

**Keywords:** Financial Technology (Fintech), Digital Banking, Digital India, Revolution in Banking, UPI, Cross-border Payment and Peer-to-Peer Payment



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### Introduction

# Evolution of Financial Technology (Fintech)

According to a report published by (Douglas, 2016) <sup>1</sup> of Asian Institute of International Financial Law, states that, the term's origin can be traced to early 1990's with "Financial Services Technology Consortium", a project which was initiated by the Citigroup. This project would focus on providing and facilitating technological cooperation to various prevailing sectors.

Figure 1: Evolution of Financial Technology (Fintech)



Fintech 2.0
(1967-2008)

Fintech had a presence in developed economies through internet infrastructure

Fintech 3.0
(Beyond 2008)
Fintech had penetrated in global markets with the help from start-ups developing

secured mobile-based solutions

Source: Zigurat article: Evolution of Financial Technology (Fintech)<sup>2</sup>

Douglas (Prof. of Asian Institute of International Financial Law, University of Hong Kong) <sup>1</sup>: FinTech: Evolution and Regulation Zigurat (An innovation and technology business school)<sup>2</sup>: Evolution of Financial Technology (Fintech)

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# Financial Technology (Fintech) 1.0:

According to a report published by Prof. Douglas W. Aner, Asian Institute of International Financial Law, University of Hong Kong titled, "Financial Technology (Fintech): Evolution and Regulation" states that, Financial Technology (Fintech) can be traced in late 19<sup>th</sup> century where finance and technology were combined to develop the first of its kind financial process which can be replicated globally. As per John M. Keynes (1920) quotes that's, "the inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his door-step; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble."

# Financial Technology (Fintech) 2.0

The Financial Technology (Fintech) 2.0 was seen during the time 1967-2008 where internet had penetrated in most of the countries globally, most of the financial institutes were providing ATMs, online banking and many more services. Paul Volcker (2009) said that, "most of the important financial innovation that, I have seen the past 20 years is the ATM's, that really helps people and prevents visits to the bank, and it is a real convenience."

# Financial Technology (Fintech) 3.0

The Financial Technology (Fintech) 3.0 started post 2008 era, where the banking and financial sector saw emergence of new players or start-ups which mutually co-existed and shared the same banking and financial space with existing banking and financial players. Jamie Dimon, CEO, JP Morgan stated that, "Silicon Valley is coming: There are hundreds of start-ups with a lot of brains and money working on various alternatives to traditional banking. They are very good at reducing pain points in that they can make loans in minutes, which might take banks weeks."

# Global Financial Technology (Fintech) Market: 2018-22

(PR Newswire, 2019)<sup>3</sup> states that, the global Financial Technology (Fintech) market is pegged at US\$ 127.66 Bn in 2018 and is expected to grow to US\$ 309.98 Bn by 2020. The growth in Financial Technology (Fintech) market would be fostered by growth in digital payments

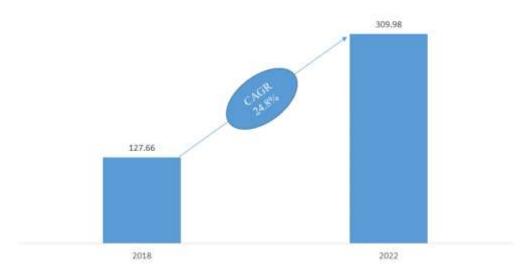
PRNewswire (The Business Research Firm)<sup>3</sup>: Global Financial Technology (Fintech) market value is expected to reach US\$309.98Bn at a CAGR of 24.98% through 2022

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sector, digital commerce, and penetration of mobile technology globally. Also, with several business adopting to digital payments systems, the demand for Financial Technology (Fintech) solutions would increase and drive the growth of the Financial Technology (Fintech) market. (Mearian, 2017)<sup>4</sup> says, Financial Technology (Fintech) players globally are using Blockchain technology- a distributed ledger (As per Lucas Mearian, a distributed ledger technology which records each transaction which helps on streamlining the supply chain) platform to improve their operational efficiency and encrypt its user transactions from potential hackers.

Figure 2: Global Financial Technology (Fintech) Market (2018-22 in US\$ Bn)



**Source:** PRNews Wire Article

### **Indian Financial Technology (Fintech) Market**

(ET, 2019)<sup>5</sup> says, the Niti Aayog expects that the Indian Financial Technology (Fintech) market is expected to grow to US\$ 31Bn by 2020. The smartphone penetration and start-up culture in India has created a platform for Financial Technology (Fintech) service provides which one of the driving factors in for Financial Technology (Fintech) in India.

The Indian banking system for long time was dominated by Government of India undertaking or PSU banks as they were licensed and highly regulated to comply with the banking laws prevailing during the time. Since most large banks, were government regulated banks they use to assist government in funding heavy infrastructure projects. Post liberalization in 1993, the Indian market suddenly saw a birth of private sector banks which were highly efficient and

Lucas Mearian (a senior reporter of Computer world, a IT professional magazine)<sup>4</sup>: <u>Blockchain; Article from Computerworld</u> ET (India's one of the leading financial newspaper)<sup>5</sup>: <u>Financial Technology (Fintech) h market in India to touch US\$ 31 Bn in 2020</u>



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were catering to changing needs of the Indian customer in that era. Later, on account of globalization, the Indian banking sector got flourished with foreign banks, which gave a tough time to existing Indian PSU banks. This created a high competition for attracting customers with high-end technology, good customer service along with strong banking network. Foreign banks also brought advanced technologies with them which would create awareness and cater the demands of tech savvy customers.

(BFSI, 2019)<sup>6</sup> to promote digital economy and create a transparent transaction platform, in 2015, the Indian Prime Minister Shri. Narendra Modi led government started 'Digital India Campaign'. The campaign was aimed to create a shift from cash-run economy to a cashless economy. With more than 400 million smartphone users who has access to the internet are embracing digital economy, since the users find themselves in control of their financial health because of having access to entire data in their own hands. (RazorPay, 2017)<sup>7</sup> says, on similar lines, the Indian government has also planned to design and develop "The India Stack Project" which aims to create a unified software platform which will allow enterprises to use digital infrastructure for transacting in a paperless and cashless environment. This project would create the world biggest Financial Technology (Fintech) driven revolution in India.

(Infosys, 2016)<sup>8</sup> says, advanced technologies brought by foreign banks, penetrated in the Indian banking space, creating a path for Financial Technology (Fintech's) to offer their highly advanced and secured banking solutions which would create transparent banking systems for its users. The Financial Technology (Fintech) companies uses technology as a catalyst for offering tailor-made financial services to its end-users. This will have immense benefit to the end-user. With such technological inclination, Financial Technology (Fintech) believes that they can develop innovative products and services in-house or by partnering with technology-focused start-ups. The Financial Technology (Fintech's) prevailing in banking space offers services, product applications, business processes and business model. Currently, Financial Technology (Fintech's) cater to commercial lending and consumer payment space. For instance: Financial Technology (Fintech's) who cater to lending and payment space are enhancing their platforms to build an innovative business model with highly encrypted security

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BFSI (The Banking & Finance Post, a bi-monthly magazine)<sup>6</sup>: <u>Growing significance of Financial Technology (Fintech) in India</u> Razorpay (India's payment gateway firm)<sup>7</sup>: <u>What is India Stack and how is it set to change India?</u> Infosys (India's one of the major IT firm)<sup>8</sup>: <u>Financial Technology (Fintech) revolution in banking; leading the way to digital;</u> Anoop Kumar Gnanmote



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features and new customer profiling techniques. They also have peer-to-peer lending which generates revenue by connecting the lender with the borrower directly, thereby creating a winwin situation for all.

# Financial Technology (Fintech's) impact upon entering banks core forte

With growing importance of Financial Technology (Fintech) in banking sector, the traditional banks are under threat as they are simply a facilitator of commerce and need to revamp their business model to remain relevant to their fast-evolving banking world. (Infosys, 2016)<sup>9</sup> says, the traditional banks need to clear the budget allocated for upgrading their existing technological infrastructure. Their budget allocation should focus on designing innovating hassle-free banking solutions. These banks should also adopt agile operations and allow themselves to reinvent at every stage which would help them to survive the competition given by Financial Technology (Fintech). (BFSI, 2019)<sup>10</sup> says, in early days, the banks had embraced computers and networking solutions for reducing the manual work, this time can be replicated in today's scenario. The banks should start learning and developing innovative solutions which would help them in gradually changing the existing mindset in the way it operates. The banks need to hire right kindly of talent pool which would help them in developing cutting edge banking solutions. In earlier days, the traditional banks were not able to fulfil the demands of their customers. To satisfy the evolving needs of the customers, banks are partnering with Financial Technology (Fintech) players to offer unique selling proposition (USP) solutions which can drive customer demand. The banks should take advantage of their existing customer base which would help them to understand the evolving needs. It will help banks to focus on their core forte, while Financial Technology (Fintech) will address rest of the demands of banks customer. Further, banks will allow Financial Technology (Fintech) player to access core banking systems in a secured and restricted environment; to be in control of all transactions and eliminate or minimize irregularities in transactions if any.

### Recommendations

After going through various reports, blogs, and articles on Financial Technology (Fintech) and Indian Banking sector; I would like to recommend below pointers which would help the Indian banking sector to compete globally.

Infosys (India's one of the major IT firm) 9: Financial Technology (Fintech) h revolution in banking; leading the way to digital; Anoop Kumar Gnanmote

BFSI (The Banking & Finance Post, a bi-monthly magazine)<sup>10</sup>: Growing significance of Financial Technology (Fintech) in India



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- As rest of world is swiftly adopting smart banking solutions which would help them to
  offer better banking solutions. The Indian banks also needs to revolutionize themselves by
  adopting innovative technologies to improve its banking network as quickly as possible
- Implementation of stricter laws and regulation for controlling Financial Technology (Fintech) by Finance Ministry along with RBI and SEBI
- Allowing Financial Technology (Fintech) firms to partner with NBFC's for designing credit guarantee schemes for agricultural sector
- Designing Open banking and Virtual banking platforms and assessing the openness of citizens towards it
- Creating API's for developing Financial Technology (Fintech) solutions which would help in developing a database for India's MSME sector

### **Conclusion**

Due to availability of affordable internet connections and penetration of smartphones across India including rural India has created a platform for Financial Technology (Fintech) players to cater and offer the banking solutions to the un-tap market in India. Today, technology is reducing the dependency on traditional banks and giving opportunities for organization which can design better, faster and affordable services which would be an essential part of day-to-day life. Due to which, the Financial Technology (Fintech) has a potential in India as the needs of Indians are not fully understood by the traditional banks. To counter this move, the traditional banks need to absorb the technological changes or partner with Financial Technology (Fintech) players which would help them to design innovative new age banking products and services.

### **List of Abbreviations**

Abbreviation	Full Form
API	Application Program Interface
ATM	Automated Teller Machine
Bn	Billion
CAGR	Compound Annual Growth Rate
Fintech	Financial Technology



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UPI	Unified Payment Interface
USP	Unique Selling Proposition
US\$	United States Dollar

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