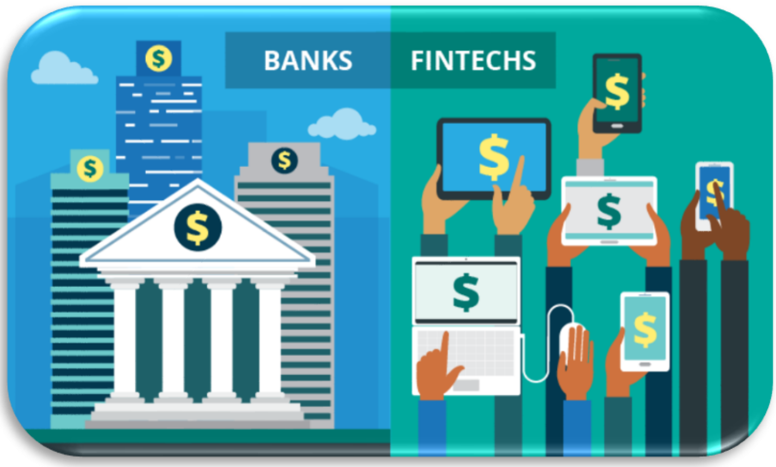
UCOM – 502 – BANKING THEORY AND PRACTICE

FINTECH BANKS



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What are FinTechs?

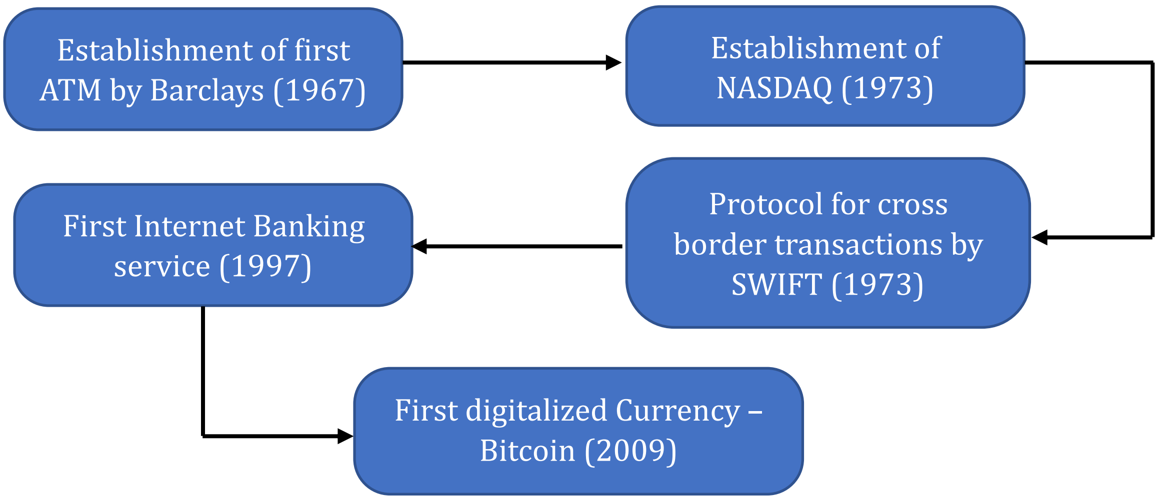
'FinTech' is a combination of two words – 'Finance' and 'Technology'. FinTech refers to the practice of integrating technology into the banking and finance industry, for efficient delivery of services to clients. There is a clear distinction between what is known as a 'FinTech' and a "Bank". *A startup can be a FinTech but the converse is not true*.

Banks are financial institutions that are licensed to accept deposits and lend out loans to customers. Unlike traditional banking institutions, a FinTech cannot give out loans in its name.

The use of Fintech is possible anywhere in the field of finance – Banking, Insurance, and Investment. The upgradation of technology and the idea of 'modernization' and 'digital world' has made the emergence of FinTech a reality. Some of the prominent FinTech companies in India are Paytm, Zerodha, BharatPe, PhonePe, etc.

Evolution

Though the word 'FinTech' sounds new in concept, the base of FinTech can be dated back to the point when ATMs were first introduced – which eased customer's need for withdrawing money. The timeline below shows some of the vital important events that acted as a base for the introduction of FinTechs.



These early stages of technological innovations led to the foundation of the FinTech industry. FinTech 3.5, which is the present stage, led to the emergence of startups in the fintech sector with a strong reliance on technology.

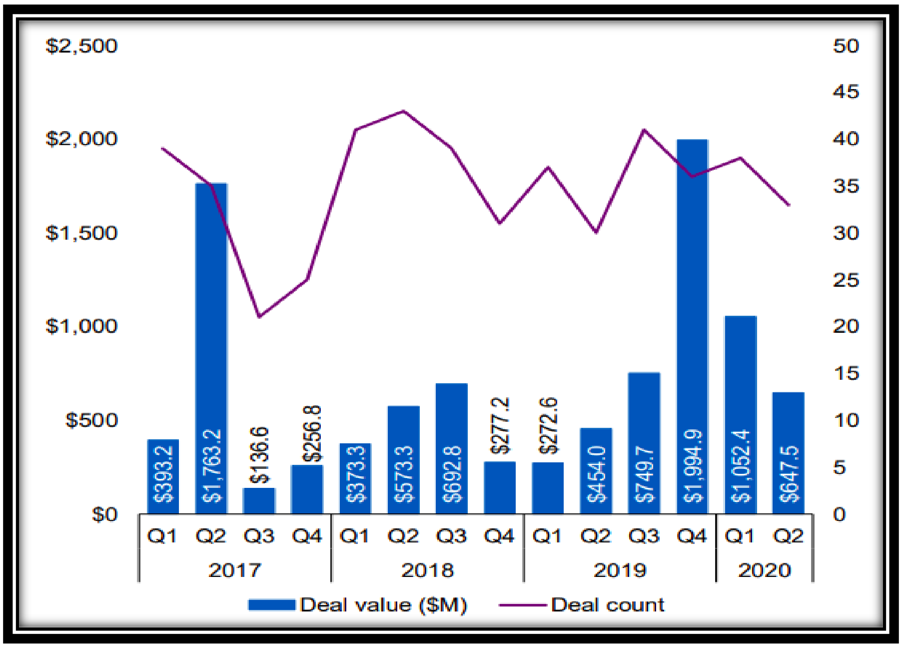


Figure 1: Total Investment Activity (VC, PE, and M&A) in FinTech in India 2017-2020

The Indian FinTech Sector has seen a 14% share of global funding. India ranks #2 on Deal Volume. The FinTech Market Opportunity is estimated to be $2.1 trillion. As of 2022, Indian fintechs are the 2nd most funded startup sector.

Drivers behind boom of Indian FinTechs

FinTechs have grown drastically in the last couple of years. With technology, fintech can offer innovative solutions that traditional banking systems could not do. Additionally, Fintechs portray themselves as immune to the effects post-Covid Era and the negative implications of the 2008 financial crisis.

The boom of the Indian fintech industry has its root lies in the results of a unique cohesion between technology enablers, regulatory interventions, and the vast opportunities for fintech services.

- The younger Generation has a higher proportion in the Indian market, who have a changing mind and thus are more likely to adopt fintech innovations. The adaption rate[1] of fintech in India is **87%**.

Figure 2 shows that growth of wireless data usage is one of the major enablers for boom of Indian fintechs like Paytm and PhonePe.

[1] Adaption Rate: Percentage of new users to all users.

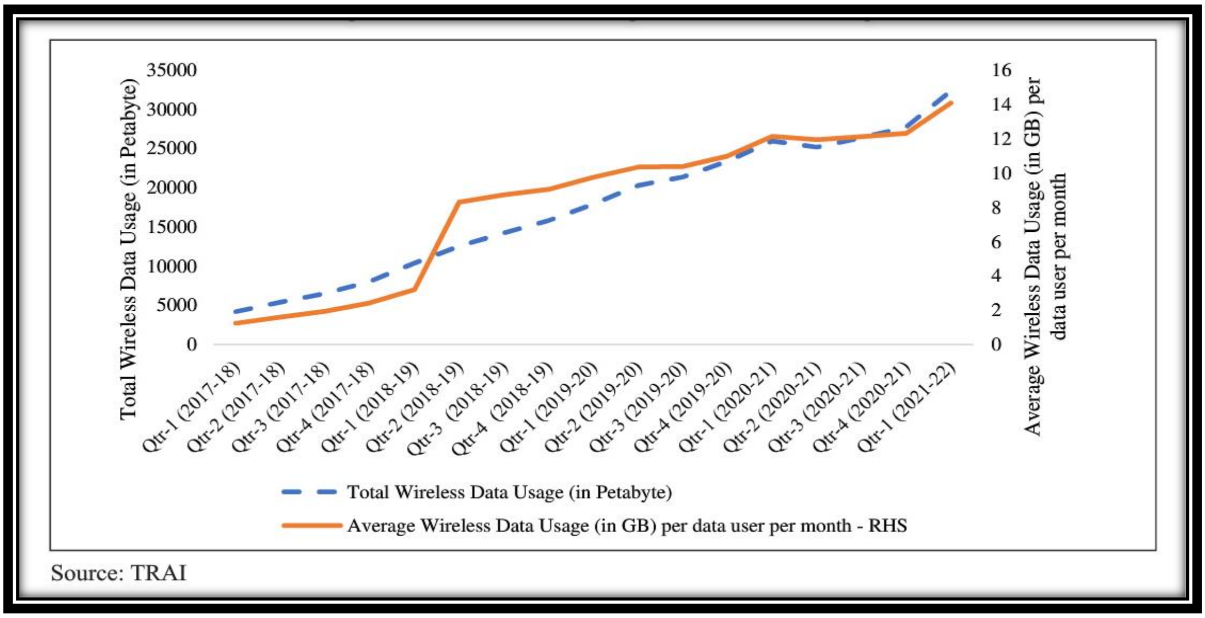


Figure 2: Total and Average Wireless Data Usage

- The evolution of 'India Stack', an indigenous set of technologies and principles that allow for innovations in the finance sector, have made the environment favorable and suitable for further developments in the fintech industry.
- The penetration of smartphones and the policy of demonetization by the Government of India has set course the future for digital & UPI payments. In Figure 3, it can be seen that transactions done through digital payments have increased from 3% of total payment modes in 2005 to a projected increase of 58% in 2025. Though traditional banking systems still see more money, they are adapting to the changing methodology of payments.

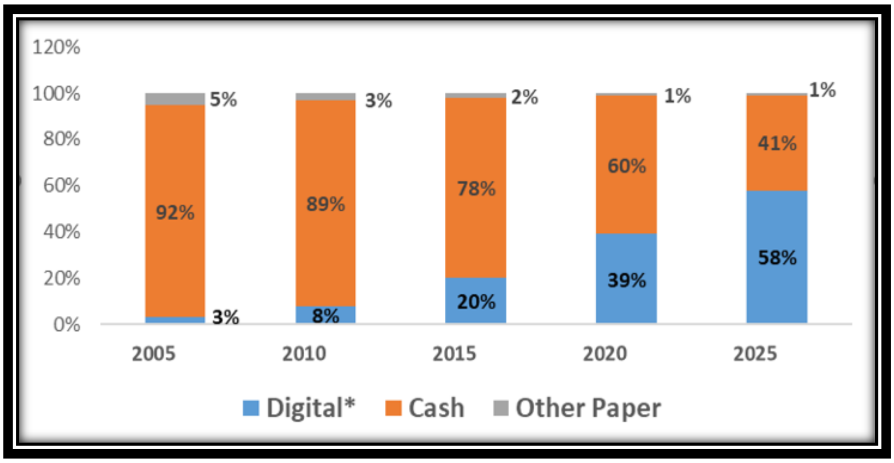


Figure 3 : Growth of Digital Payments

How do FinTechs operate?

Payments to peers through Paytm, PhonePe, GPay; online transactions, internet banking, online trading etc. are some cases where we use fintech services. Even small-time vegetable vendors and street hawkers are accepting money through digital payments. FinTech companies use technology extensively for its functioning. They may not necessarily have a separate premise as its "branch". At present, the FinTech are operating through the following means: -

- **Mobile-based applications:** FinTechs are offering mobile-based applications which allow its customers to get access to their funds and the corresponding details at any time. From payments app to investment apps, these FinTech Mobile applications provide customers with all the details they require with minimal effort.
- **Web-based solutions:** Apart from apps, FinTechs also operate by providing web-based solutions, like an internet website, where the customers can log in to it and perform similar function as provided by the mobile-based applications.

Categories of FinTech Innovations

Below mentioned are some of the categories of fintech innovations that have come up: -

Payments Services: Mobile Banking and Payments App have enabled individuals all over the world to check their bank account details and make payments. With the help of technologies such as distributed ledger technology (used prominently in the blockchain), an individual can get access to his account holdings. Through the use of fintech services, payments to peers or suppliers can now be done with just a tap on the phone. Examples include Paytm, PhonePe, etc.

Digital Lending Services: a.k.a Peer-to-Peer Lending[2] (P2P Lending), FinTech companies have made the process of raising capital and lending money easy. The FinTechs connect the borrower who requires a loan and the lender who is willing to give out loans. FinTechs does not use their own money in any way. With this, crowdfunding services have become convenient for entrepreneurs. Some examples include Earnest, Policy Bazaar etc.

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[2] A form of financial technology that allow people to lend/borrow money from another individual (peer), without going through a bank.

Insurance Services: With fintech, the buying process or claiming of insurance has become much easier. Insurance for all categories can be taken easily. Some fintech companies which offer this service include Acko General Insurance, Toffee Insurance, etc.

Investment Management Services: This category of innovation focus on giving advice and suggestions to customers in an investment portfolio. Robo-advisors developed through algorithms based on real-life situations and complexities, have enabled customers to manage an investment portfolio without the need for human interaction. Some examples of companies that provide this service include *MarketAxess*, *Opto Investments*.

Technologies used in FinTechs

Fintechs can deliver a vast range of benefits, which also has provided with reduced cost of operations, speed and efficiency of transactions. Key technologies used by fintechs in delivering its services are listed below:

1. **Cloud Computing:** The need for investing in expensive data centers has been reduced through Cloud Computing. With this, companies can now use the data about customer for providing better customer experience. FinTechs are pursuing a hybrid cloud strategy for data storage. Managed Cloud Service Providers (MCSP) are strengthening cloud security solutions.
2. **Artificial Intelligence:** AI and its innovations such as Machine Learning Software and Robo-Advisors are one of the prominent technologies used by a fintech company. Many fintechs in the field of Investment Management has Robo-Advisors built into its fintech services. It has eased the process of finding a perfect investment portfolio.
3. **Blockchain Technology:** It is a distributed ledger in which transactions are kept as blocks on computers linked to the network. The ledger expands the length of blocks in a chain expands. All machine linked to the network have complete information about the transactions taken place in the network.
4. **Big Data & Analytics:** Big Data is one of the key technologies for the success of fintechs. Big Data has become useful due to the substantial structed and unstructured data in the banking and finance industry. This serves as the key ingredient for development of better AI-powered chatbots and better risk management services.
5. **Security Technologies:** Developments concerning security of transactions such as Biometrics, Data Encryption, Digital Signatures,

Multi-Factor Authentication etc., have increased the trust in fintechs by individuals and business sectors.

Stepping into a future of promising operations in the field of finance, banking and insurance, Venture Capitals are actively involved in providing capital to fintechs. Unlike traditional banks, FinTechs do not have access to public money. As such, for any transaction, it directly connects one party to other.

Impact on Traditional Banking Institutions

Technological innovations and advancements have driven banks to cope with the efficient working model. FinTechs has provided customers with easy accessibility of banking and financial services and thus has started to attract more customers into their net. Banks no longer see FinTechs as a disruptive force to their working. Instead, it has been seen it as enablers. To cope with the technological changes seen in this new industry, the traditional banking systems have been collaborating with emerging FinTech companies, for its operational functions.

RBI has stated, ***"Synergies are expected to be explored between FinTechs and Banks"***[3]**.** FinTech, lacks the required customer base for it to be large enough and profitable. On the other hand, banks have large customer base but has low investment in technology. This value will give FinTechs a competitive advantage; and a strategic partnership between the two could give both the industry to focus on respective core competencies.

The trustworthiness, customer knowledge and client base are of immense value to the upcoming FinTechs. Banks can leverage the technologies brought in by the fintechs and can enable faster payments, improved security, providing them access to technologies such as data analytics to provide a better customer-experience interface.

However, looking at the other side of the same coin, FinTechs are disrupting them as they offer convenient and user-friendly technological solutions. When fintechs gain considerable customer base in the future, it not need to rely on collaborating with traditional banking institutions, instead be a competitor. For instance, passbook was the only document which records details of all transactions, which is taken over by e-passbook provided by online services.

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[3] RBI Report, dated November 11, 2020

FinTech companies in India has the solutions to the problems faced by traditional banks. For poor people and small businesses who have low access to financial services which is as basic as having bank accounts, FinTechs are changing the world and involving them in the world of finance.

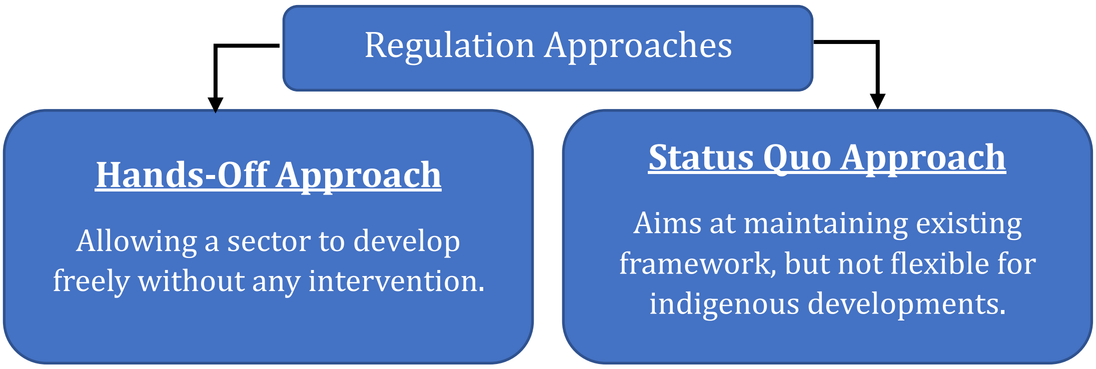
Regulation of FinTechs in India by RBI

The massive scale of financial transactions could lead to unforeseen issues that would be averse to the customers if left unchecked. Technological innovations have the potential to transform the financial workspace, which also raises the question "fair treatment" by FinTechs. Fintechs, whose core of activities lies in innovations, cannot face restriction by way of regulation. Fortunately, the sector is not yet large enough to exploit the existing players in the financial industry.

"Central Bank's interest is not confined to its impact on the financial sector alone, but also on its implications on the financial stability and monetary policy". [4]

No new regulatory framework has been put up by RBI. However, emphasis has been given to its regulation by way of existing legal principles. For instance, companies involved in Insurance technology, must comply with the Insurance Act, 1938. Major emphasis is placed on regulating Application Programming Interface (APIs), cloud computing and biometric identification; which serves as the key components of fintech's core technologies.

"Hands-off" and "Status Quo" are the two approaches that RBI considers in a fintech regulating spectrum.



RBI is finding common ground between the two ends to address the risk faced in this field, while giving way for innovations.

[4] RBI Report dated November 11, 2020.

In June 2018, a fintech unit was set up by the RBI in the Department of Regulation as a central point for all Fintech - related matters. Within the Department of Payment and Settlement Systems, a fintech division was created during July 2020, which was then later transformed into a fully functioning department from January 4, 2022, now headed by Ajay Kumar Choudhary. The objective of this division was to promote & support innovation, handling international coordination of fintechs, identifying and addressing the challenges associated with FinTech in an orderly manner.

'*FinTech Working Group*' was established in 2016 to regulate and review the implications of FinTech on the financial sector. Representatives from RBI, SEBI, IRDA & PFRDA form the members of this group. A regulatory sandbox mechanism has been set by the RBI which allows various stakeholders to test the innovations developed by fintechs in regulated environment.

Conclusion

IT sector in today's world is no longer seen or experienced as a separate industry, but an umbrella industry that is bringing all other industry into its operating networks. IT systems has reduced the cost of managing the business, increased efficiency of working and thus has provided with solutions that are convenient to the kings of markets. There is no distinction between who uses technology for their operations. The finance sector will face a major technological transformation.

For instance, RBI has mandated that traditional banking systems can keep their books of accounts through automated software. It is just a matter of months before it goes fully digital FinTech will be accepted by everyone for all business transactions and legal procedures.

Despite technology having a strong role to play in the finance and banking industry, the fact that with technology also comes the risk of security cannot be ignored. As a result, the onus of Consumer Data Protection falls on these fintechs and its mediums to ensure the privacy of the data. The need for cybersecurity has increased. The need for a standardized system of procedures to ensure transparency, security is essential.

In conclusion, Indian Fintech industry has a strong and promising future provided it complies with the legal complications so as to ensure further development of innovative products and services provided to customers. It has shaped the present world and is shaping the future world.

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