

**FINTECH AS A ROAD MAP TO ENHANCE BUSINESS OPERATIONS  
AND DELIVERY OF FINANCIAL SERVICES**

**Dr. R. K. Sudhamathi\***

\*Associate Professor,  
GRG School of Management Studies,  
PSGR Krishnammal College for Women,  
Coimbatore, Tamil Nadu, INDIA  
Email ID: sudhamathi@grgsms.ac.in

**DOI: 10.5958/2249-7307.2022.00017.2**

---

**ABSTRACT**

*Fintech, the word is combination of “financial technology” which aims to improve and automate the dissemination of financial services. Fintech refers to variety of financial activities such as money transfers, depositing a cheque with your smartphone, by passing a bank branch to apply for credit, raising money for business startup and managing investments without human intervention. This article discusses the application and technology of fintech. The article also briefly touches upon the history, global fintech companies and fintech scenario in India. The growth rate of fintech industry is robust, by addressing some of the key challenges like comprehensive regulations to govern fintech sector, data security and privacy issues and early stage funding for fintech startup this sector could achieve remarkable landscape in financial services industry.*

**KEYWORDS:** Artificial Intelligence, Block chain, Big data, Fintech, Regtech, Roboadvisors.

---

**1. INTRODUCTION**

Fintech, the word is combination of “financial technology” which aims to improve and automate the dissemination of financial services (Investopedia n.d.) [1]. Fintech is broadly used to describe emerging technological innovations in the financial services sector, with ever increasing reliance on information technology. The Financial Stability Board (FSB) defines Fintech as “technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services” (RBI n.d) [2]. During the emergence of fintech in the 21<sup>st</sup> century, the term was used to refer the technology employed at the back-end systems of financial institutions. But in present scenario fintech is shifting its focus more towards customer oriented services. Fintech is now evident across different sectors of financial services industry such as retail banking, fund raising, investment banking, cryptocurrency trading etc. (Investopedia n.d.) [1].

Thus in nutshell fintech refers to variety of financial activities such as money transfers, depositing a cheque with your smartphone, by passing a bank branch to apply for credit, raising money for business startup and managing investments without human intervention (Investopedia n.d.) [1]

## **2. APPLICATION OF FINTECH**

Fintech applications are emerging day by day. Application of fintech are profoundly found in the following areas:

### **1) Mobile Banking**

One of the well known application of fintech is mobile banking. It provides digital access to bank accounts, on mobile device. With rise of neobanks, mobile banking application of fintech serves customers with checking, saving, payment services and loans on mobile device.

### **2) Crypto currency and blockchain**

Fintech gave birth to cryptocurrency and block chain technology. Cryptocurrency trading was possible through block chain technology. Cryptocurrency trading and block chain technology gave unique identity to fintech application.

### **3) Crowd funding**

Fintech provides crowd funding platform which allows entrepreneurs and early stage business to raise funds across the world. Eg. of such crowd funding platforms are Kick starter, Gofundme and Patreon.

### **4) Robo advisors**

Fintech provides online investment management services. It uses algorithms to allocate assets and generate portfolios for customers. This fintech application supports to engage in investment activities at low fees with minimal manual effort.

### **5) Insuretech**

Insuretech enables insurance companies to streamline the insurance process through online claim filing and policy management

### **6) Regtech**

Regtech is referred as regulatory technology focuses on the automation of compliance processes for financial institutions. It enables in processing large amount of data such as transaction records and compliance documents.

### **7) Mobile payments**

Mobile payment applications and gateways are most widely used fintech application. This application allows users to carry out banking activities without physically visiting a bank. Eg. Companies like Venmo and Interac facilitate customers to send and receive money through smartphones at minimal transaction cost (corporate finance institute n.d.) [3]

## **3. TECHNOLOGIES SUPPORTING FINTECH**

### **1. Artificial Intelligence (AI) and Machine Learning (ML)**

Artificial Intelligence (AI) and Machine Learning (ML) are some of the most used technologies in fintech, offering the potential to play an even bigger role in the finance industry as developments continue. Some of the fintech applications of AI and ML include credit scoring, fraud detection, regulatory compliance, and wealth management.

### **2. Big Data and Data Analytics**

Data from customers and markets is of high value to fintech companies. Big data and data analytics, enables to process large datasets, consumer preferences, spending habits, and

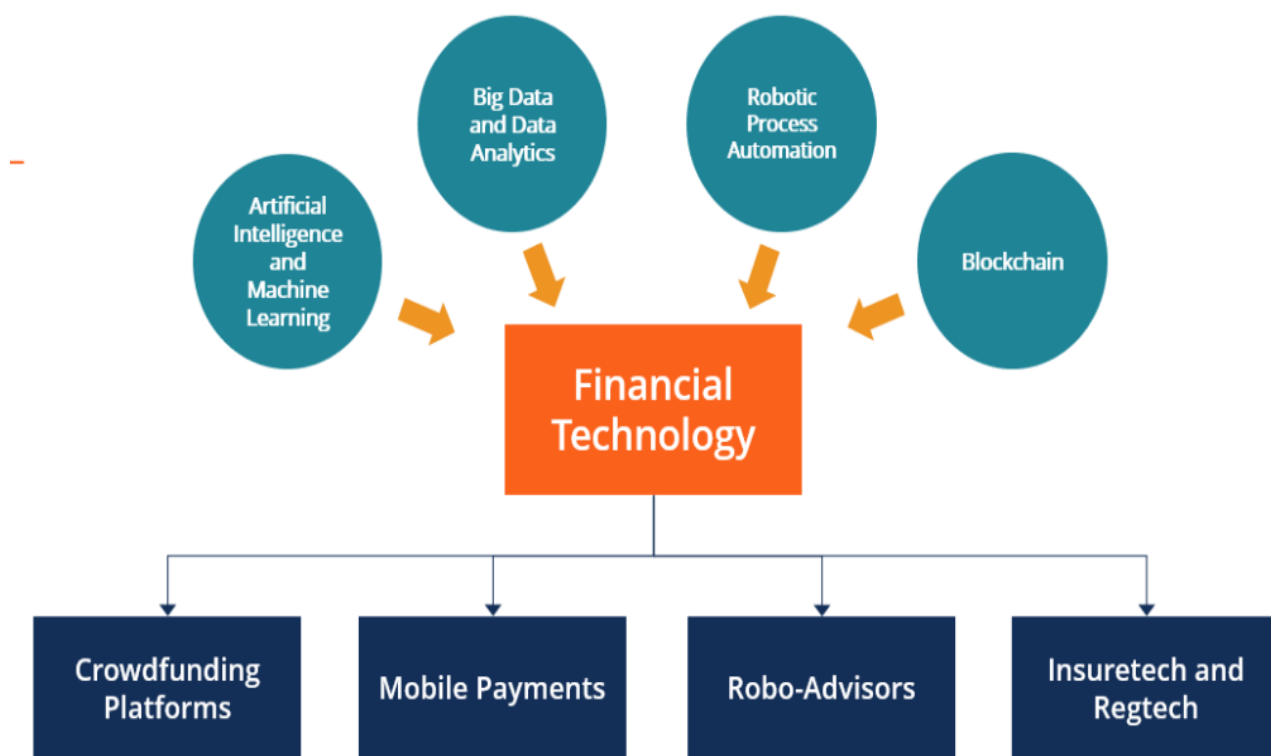
investment behavior can be extracted and used to develop predictive analytics. Predictive analytics refers to predicting how consumers are likely to behave using past information and a mathematical algorithm. The collected data also helps in formulating marketing strategies and fraud detection algorithms.

### 3. Robotic Process Automation (RPA)

Robotic Process Automation (RPA) refers to the process of assigning manual, repetitive tasks to robotics instead of humans in order to streamline workflows in financial institutions. The most widespread applications of RPA in finance are data collection, regulatory compliance management, communication and marketing through e-mails and chat bots, transaction management.

### 4. Blockchain

Blockchain technology is being adopted at a large scale in the financial industry, primarily due to its ability to securely store transaction records and other sensitive data. Each transaction is encrypted, and the chances of successful cyber-attacks are relatively low when blockchain technology is employed. Blockchain technology is also the backbone of many cryptocurrencies (corporate finance institute n.d.) [3]



Source: <https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology/>

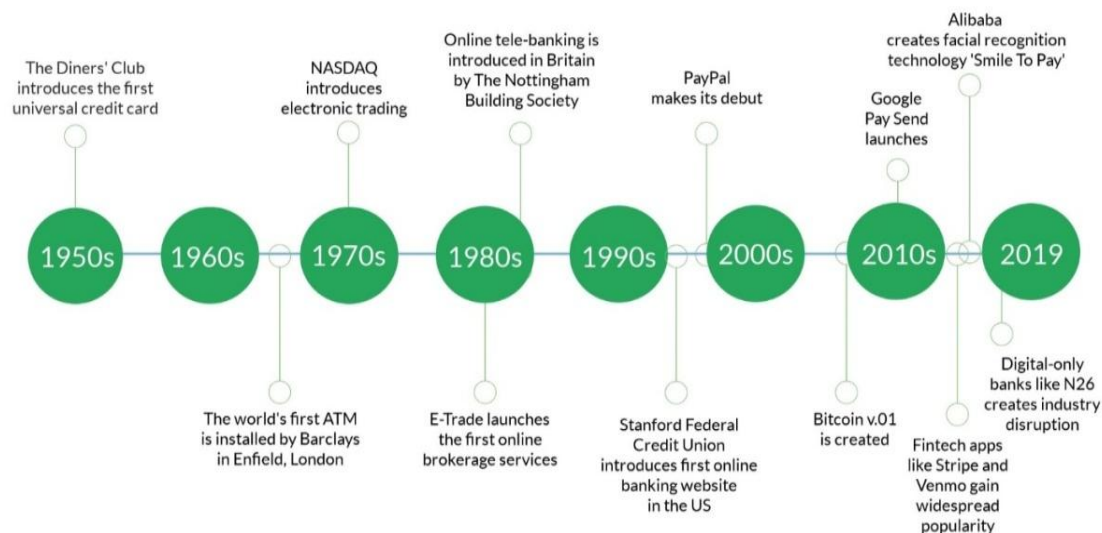
**Fig- 1 Fintech and its Applications**

## 4. HISTORY OF FINTECH

Emergence of fintech was initiated by the birth of the credit card in 1950 and ATM in 1960. Fintech was initially used for back office operations of banks and stock trading companies. The boom of internet and the rise of mobile computing has propelled its increased

application. At present fintech has taken an important space in the today's digital world. Fintech technological tools are expanding its horizon by leaps and bounds (finances online n.d.) [4]. Figure -2 depicts the evolution of fintech.

## Evolution of Modern Fintech



Source: Abhishek Soni/Medium.com, 2019

Fig-2 Evolution of Modern Fintech

### 5. GLOBAL FINTECH COMPANIES

The following are the few examples of leading fintech firms in existence.

#### Payment gateways

**Paypal** was one of the leading US based online payment systems, founded during 1998. They primarily deal in electronic money transfers. It has 286 million active account holders, operates in over 200 markets across the world and deals in 100 currencies.

**Authorize.Net** is one of the old timer online payment provider since 1996. It is now owned by Visa and focuses on providing electronic payment services to small and medium business units.

**Payoneer** was established in 2005. It offers digital payment services, online money transfer and other popular B2B payment solutions to large global firms like Google, Up Work and Amazon.

#### Mobile Payments

**Venmo** is subsidiary of Paypal. This is a widely used mobile app to transfer funds and make payments using smartphones at millions of establishments worldwide.

**Revel systems** provide retail POS systems used in restaurant, grocery stores etc. Revel Systems is iPad-based and seamlessly processes mobile payments

**Apple Pay** is a digital wallet and mobile payment service made by tech giant Apple Inc. It supports in-person contactless payment online and via iOS apps. It can accept even non-Apple Pay terminals to support mass payments.

### **Budgeting / Personal Finance Apps**

**Intuit** is a budgeting app Mint. It is a Palo Alto, CA based firms which specialize in accounting, financial and tax preparation apps and services.

**Acorns** are based in Irvine. It is a CA fintech company that specializes in micro investing services. It assists users in passive investment on exchange traded funds

**Wally** is a Dubai based fintech company which makes Wally, a popular, user friendly personal finance app. This app helps users make easy income vs. expense comparison as well as set and reach finance objectives.

### **Consumer Banking**

**Green Dot:** This popular banking app provides trouble-free banking for millions of people. Aside from offering dependable, affordable debit accounts, this fintech manages the biggest retail cash deposit network worldwide.

**Netspend** Founded in 1999, Netspend had served around 68 million underbanked individuals. This fintech uses special tools to provide them financial freedom, security, and convenience.

**Moven.** This fintech offers a flexible smart banking platform that enables banks to lower customer acquisition costs, boost new revenue sources, and lessen customer churn rates. It uses advanced financial analytics, behavioral science, and big data to design innovative banking apps.

### **Robo-Advising and Stock-Trading Apps**

**Vanguard** is managing US\$1.3 trillion in index funds is a market leader in robo-advising.

**Robinhood** is headquartered in Menlo Park, CA. This fintech company promoted zero commission business models in online brokerage business. It creates cash management apps for cryptocurrencies, stocks, options and exchange traded funds.

**Charles Schwab** is San Francisco based stock brokerage Fintech Company which facilitates online stock trading and has over 12 million brokerage customers.

### **Insurance**

**Oscar Health.** This New York-based fintech is the first health insurance firm designed to optimize technology to make health care simple and easy. Founded in 2012, Oscar uses transparent claims pricing systems, healthcare-focused tech systems, and telemedicine.

**Root Insurance:** This unicorn tech firm offers alternative car insurance that provides drivers up to 52% savings on an insurance policy. Headquartered in Columbus, OH, Root uses technology to test driving behavior whose score determines the premium rates.

**Policy Genius:** It offers people an easy approach for comparing and buying insurance by providing complete, easy-to-understand advice. Customers are then able to better compare

quotes and select which insurance suits their needs.

### **Blockchain and Cryptocurrency**

**Blockchain:** This Luxembourg-based cryptocurrency fintech makes the popular Blockchain Wallet, which is considered as one of the easiest ways to store, invest, and trade cryptocurrencies. Trusted by over 402 million wallets, it has handled over 100 million transactions involving users from 140 countries.

**Coinbase:** Coinbase manages the world's largest cryptocurrency exchange, used by more than 25 million users from 32 countries. This online marketplace allows users to sell, store, and purchase cryptocurrencies like Ethereum, Bitcoin cash, etc.

**Binance.** This cryptocurrency exchange app offers one of the safest methods for cryptocurrency buying and trading across a wide range of crypto markets. It also has a mobile trading app that supports many features.

### **Peer-to-peer lending/Crowdfunding**

**Kickstarter.** Launched in 2009, this New York-based crowdfunding fintech has received over US\$4.5 billion in pledges and has successfully funded over 171,000 projects to date. The company has an average success rate of 37.31% success rate.

**GoFundMe.** Another leading crowdfunding firm, this for-profit crowdfunding firm has raised over US\$5 billion. All its projects-which focus on helping community-based projects—are backed-up by a community of over 50 million donors across the world.

**Upstart.** Founded by former Google employees, this peer-to-peer online lending firm uses non-conventional criteria to measure a person's creditworthiness. Borrowers can loan amounts starting at \$1,000 to \$50,000, with a low 8.85% interest rate (finances online n.d.) [4].

## **6. TYPES OF FINTECH USERS**

Fintech companies continuously enhance financial services to be more accessible to businesses and consumers. By making financial systems easier to use and more readily available, businesses and consumers will also improve their respective affairs. There are two main types of fintech users, namely consumer and business users. These two, there are four common, function-specific fintech user categories today. These are:

- Consumers
- B2C for small businesses
- B2B for banks
- Bank's business clients (finances online n.d.) [4].

## **7. FINTECH SCENARIO IN INDIA**

During the year 2015 -2020 India has witnessed massive growth in fintech companies. According to the "MEDICI India FinTech Report 2020", India had secured 2<sup>nd</sup> position in new fintech start-up in last 3 years after the US (data of china not considered). At present

there are more than 2000 fintech companies in India. The Boston Consulting Group in its recent report has stated that there will be a \$100 billion value creation opportunity in fintech Industry of India and its value will grow by \$ 150-160 billion by 2025.

### **Fintech Regulations in India**

Indian government programmes such as Unified Payment Interface, Jan DhanYojna, Startup India, Digital India programme, recognition of P2P lenders such as non-banking financial companies and National Common Mobility Card has created a favourable business climate for fintech companies in India.

To regulate the fintechcompanies RBI has announced Regulatory Sandbox(RS) framework in 2019 which includes provision for entry and exit of startups, duration and indicative list of innovative products, additional services available and technology which could be considered for testing under RS. The Insurance Regulator (IRDA) introduced the IRDAI regulatory sandbox in 2019 to promote fintech in insurance sector. Securities Exchange Board of India in 2020 has released a framework for RS for entities registered with it to experiment withfintech solutions ( Gaurav Dayal & Badri Narayanan L, 2021) [5]

### **Key Segments and Business Models of Indian Fintech**

Indian fintech companies initially concentrated in payments and lending, however fintech eco system has encouraged substantial new fintech platforms in different segments. Table-1 summarises the key segments and business models of fintech companies in India. (Gaurav Dayal & Badri Narayanan L, 2021) [5]

**TABLE-1 KEY SEGMENTS AND BUSINESS MODELS OF INDIAN FINTECH**

<b>S.No.</b>	<b>Segments</b>	<b>Business Model</b>	<b>Key Players</b>
1	Digital Payment	<ul style="list-style-type: none"><li>• Payment gateways and Payment aggregators</li><li>• Bill Payments and Money transfers</li><li>• Payment infrastructure POS/QR codes</li><li>• Digital Wallets</li><li>• P2P Payments</li></ul>	Paytm, PhonePe, BhartPe, RazorPay, Oxigen, Juspay, PayU, Mobikwik, Instamojo, BillDest, PineLabs, CCAvenue, Ezetap
2.	Alternative Lending	<ul style="list-style-type: none"><li>• Digital Consumer Lending</li><li>• SME Financing</li><li>• P2PLending</li><li>• Aggregators</li><li>• Credit Scoring platforms</li></ul>	LazyPay, ZestLendingKart, InCred, Creditmate, Early Salary
3	Wealthtech	<ul style="list-style-type: none"><li>• Personal finance management</li><li>• Investment platforms</li><li>• Roboadvisor</li></ul>	Bankbazaar, Upstox, Zerodha, Scripbox, Paisabazaar, Groww

		<ul style="list-style-type: none"> <li>• Digital discount brokers</li> </ul>	
4.	Insutech	<ul style="list-style-type: none"> <li>• Aggregators/Policy Management</li> <li>• Software/whitelable/ infrastructure API's</li> <li>• Online insturance claims management</li> <li>• IOT/telematics</li> <li>• Bite-size insurance/ Micro insurance</li> </ul>	Policybazaar, Acko, Digit, Coverfox, Arvi, Tofee Insurance, Easy Policy, Beato
5	Neobanking	<ul style="list-style-type: none"> <li>• Retail neobanks</li> <li>• SME neobanks</li> </ul>	Niyo, Jupiter, Finin, Neo, Kaleidofin
6.	Enablingtech & Regtech	<ul style="list-style-type: none"> <li>• B2B</li> <li>• E-KYC, AML, fraud compliance</li> <li>• Account aggregation</li> <li>• Data Capture and Integration</li> <li>• Risk Management</li> </ul>	CustomerXPs, SayPay, KhataBook, ClearTax, Ease My GST

## 8. CONCLUSION

Fintech plays vital role in global economy, business landscape and fabric of modern society at larger. Fintech field is wide spread and growing rapidly. The global Fintech market reached a value of nearly \$111,240.5 million in 2019, having grown at a compound annual growth rate (CAGR) of 7.9% since 2015, and is expected to grow at a CAGR of 9.2% to nearly \$158,014.3 million by 2023. Also the market is expected to grow to \$191,840.2 million in 2025 at a CAGR of 10.2% and to \$325,311.8 million in 2030 at a CAGR of 11.1% (the business research company, July 2020).

In order to ensure robust growth, few challenges to be addressed by fintech sector are comprehensive and separate guidelines for the governance of fintech sector, data security and privacy risks, access to early stage funds for fintech start-ups. By bringing technological innovation and agile execution capabilities, fintech will continue to transform the landscape of the fintech sector.

## REFERENCES:

1. Investopedia (n.d.). Financial Technology. Available at: <https://www.investopedia.com/terms/f/fintech.asp>
2. RBI (n.d.). Fintech. Available at: [https://www.rbi.org.in/Scripts/BS\\_fintech.aspx](https://www.rbi.org.in/Scripts/BS_fintech.aspx)
3. Corporate Fianance Institute (n.d.). Fintech. Available at: <https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology/>
4. Finances online (n.d.). What is fintech. Available at:



<https://financesonline.com/what-is-fintech/>

5. Dayal G, Narayanan BL. Emergence and Growth of Fintech Startups in India. (2021, June 15). Available at: <https://www.iflr.com/article/b1s736k3b7vdhw/emergence-and-growth-of-fintech-start-ups-in-india>