FinTech: Financial inclusion or Banking disruption

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Abstract

In the present scenario, the landscape of financial system has seen a fundamental transformation. Financial innovation in the form of FinTech has increased the options of delivery channels as well as increased the population of bankable leading to financial inclusion to a great extent. However, it has also breached into the territory of traditional banking institutions resulting in the disruption of their normal working making the financial environment uncertain, raising new challenges for financial regulators and supervisors. This article also suggests way forward in the form of mnemonic 'SECURE' that incorporates points like Security, Education, Customer, Undertaking, Regulation and Evolution to make the incumbent financial institutions more secure.

Introduction

Financial technology, it is better known as FinTech, can be define as the new technology that seeks to improve and automate the delivery and use of financial services. It is a union of financial services and information technology. In simple terms, it can be explained as the industry that uses technology to make financial system and delivery of financial services more efficient. The relation of finance and technology is quite old, however, the word has gained relevance in past decade after the 2008 financial crisis.

It is working efficiently for the agenda of financial inclusion by providing financial services in cost effective, accessible, speedy, transparent to those who were neglected by banks due to constrains of resources and geography. Present demographic conditions of India with young and tech savvy population are providing prepared ground for FinTech to evolve. India is one of the fastest growing FinTech market in world with six thousand plus FinTech startups.

It has challenged the business model of conventional banking and has blurred the boundaries between conventional banking and other financial technology industries. It has raised the concern for the financial regulators and law enforcement. The rise of digitalization of financial system is also raising the concern for public fund and data. Financial fraud, cybercrime, issues related to data piracy and unregulated financial agent have also increased along with developments in FinTech landscape.

This article explains the historical background of FinTech followed by emergence of FinTech in India, relevance of FinTech for financial inclusion and the disruption caused by FinTech in conventional banking business model. This article is trying to establish a tradeoff between financial technology and banking with the suggestions as way forward.

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Historical Background

It seems like it is a recent term but the relation of finance and technology is as old as modern society. History of FinTech can be traced back to 17th century with the introduction of infrastructural changes all over globe witnessing financial globalization. Table1 is summarizing different eras of FinTech revolution that the world has witnessed so far.

Table 1: Evolution of FinTech

Date	1866-1967	1967-2008	2008 - current	
Era	FinTech 1.0	FinTech 2.0	FinTech 3.0	FinTech 3.5
Geography	Global/Developed	Global/Developed	Developed	Emerging/ Developing
Key elements	Infrastructure/ computerization	Traditional/ internet	Mobile/start-ups/new entrants	
Shift origin	Linkage	Digitalization	2008- financial crisis/smart phone	Last mover advantage
Remarks	Telegraph, railroad and steamship were utilized for cross border financial transactions	Shifting from analog to digital	Distrust of the traditional banking and emergence of new player	Globalization of digital banking
Examples	1866- Transatlantic cable 1918- Fedwire in USA 1950-Credit card	NASDAQ-digital stock exchange 1973 - SWIFT Bank Mainframe computers, e-commerce business model	2009- Bitcoin and boom in cryptocurrencies, smartphone, introduction of payment apps	Acceptance of FinTech by India and China

Source: Author's illustration based on Bester A, 2022

In the recent years, key enabling technologies that FinTech have adopted are Application Programming Interface (API) that is used for communication between two or more softwares, Cloud computing for increasing scale and flexibility, Biometric for human identification, Distributed Ledger Technology (DLT), that is a digital system to record transactions, Big data for information gathering and Artificial Intelligence (AI) & Machine Learning (ML) to perform complicated tasks without intervention of human.

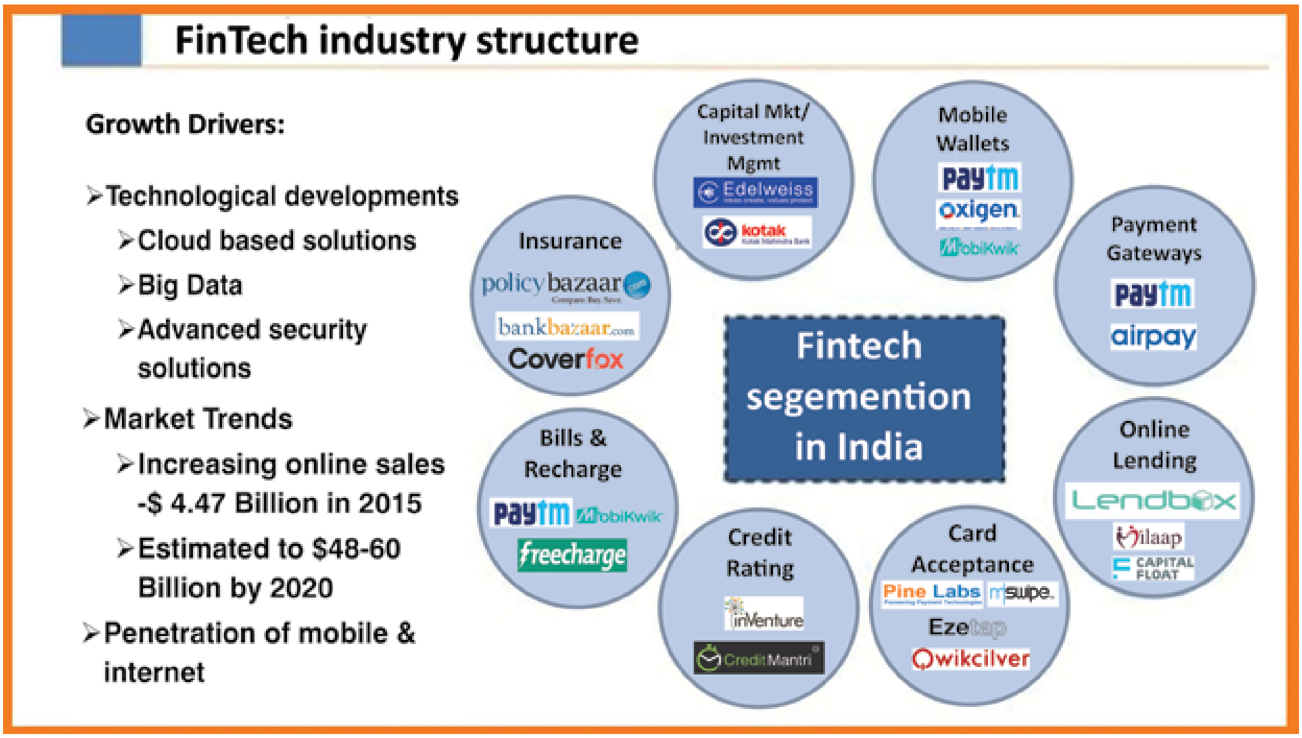
FinTech in India

The evolution of the FinTech in India is due to the mixed efforts of technological enabler, regulatory intervention and business opportunities including some unique characteristics in India. India has witnessed many growth drivers that has given favorable conditions for the growth of FinTech (a) massive internet and smartphone penetration (b) High volume of funds invested in the form of venture capital and institutional investor to drive innovation in this sector (c) Technological innovation in the form of machine learning and artificial intelligence (d) Favorable demographic of young and tech savvy population that has shown trust on FinTech (e) India stack (digital infrastructure) in form of Application Programme Interface(API) like Aadhar, UPI, Bharat Bill Payment GSTN (f) Massive financial inclusion initiative accelerated digital evolution.

India is the third largest FinTech ecosystem globally and has the highest FinTech adoption rate of 87 percent, significantly higher than the global average of 64 percent. India is among the fastest growing FinTech market with 6636 FinTech startups in India with expected market size of $150 bn in 2025 and has witnessed an investment of $8 bn in 2021 alone[1]. These companies are also operating as InsurTech and Wealth Techs. Twenty-three FinTechs have gained the status of unicorn registering the share of one fifth of total unicorns. FinTech like Zerodha, Zestmoney, Lendingkart, Policy Baazar, Money Tap, etc. are some of FinTech working in India.

Figure 1 shows the list of services that are carried by FinTech industries in India which includes insurance, stock market, sending and receiving money, paying bills, applying for personal loan online etc.

Figure 1: FinTech industry structure in India



Source : Shrivastava, 2021

FinTech has entered in every aspects of the banking territory which was earlier the sole area of banking and financial sector. The developing countries like India and China have witnessed a leap frogging in financial technology beyond brick-and-mortar banking and has reached to the people and area that were financially excluded.

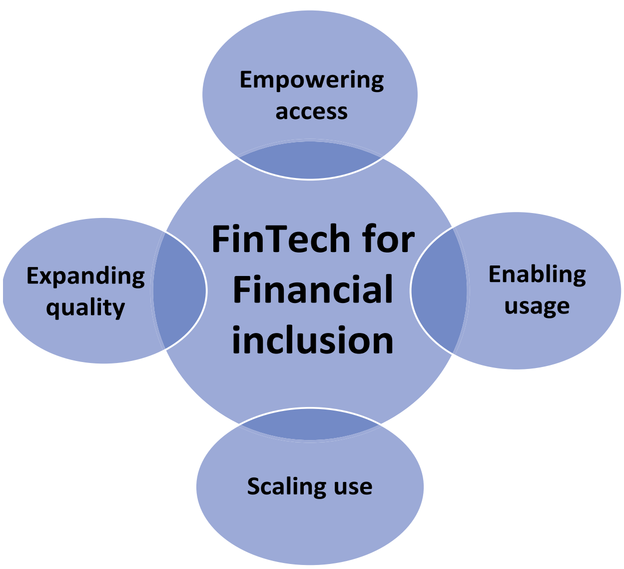
FinTech and Financial Inclusion

It has been claimed by many literatures that there is a positive and significant relation between FinTech and financial inclusion. There are many corners in the world where traditional banking has not been able to put its footprint due to resource and geographical

[1]Investment India, National Investment Promotions & Facilitation Agency.

constraints, preventing financial inclusion to be universally affordable. This is where FinTech can democratize access to financial products and world will move closer to achieve financial inclusion. FinTech has the ability to spread in all dimensions of financial inclusion, let it be access, usage and quality as it has lowered cost, increased speed and has improved accessibility through tailored financial services to the financially excluded people so far. Financial technology has helped the Government and financial companies to reach out to the financially and geographically excluded masses and educate them about the various financial products ensuring that their hard-earned money be invested as per their choice, (Kandpal & Mehrotra, 2019). In the report of Alliance for Financial Inclusion (AFI), it has been explained that framework for FinTech for financial inclusion works on four pillars which are represented in figure 2.

Figure 2: Framework for FinTech for financial inclusion



Source: Author's illustration based on AFI Special Report, 2018

The framework has incorporated Pillar 1 as empowering access through digital identification, e-KYC and simplified account opening. Pillar 2 represent enabling usage through digital payment infrastructure, Pillar 3 indicates scaling use of digital payment by Government for benefit transfers and at last Pillar 4 emphasizes improving the quality and range of digital services. In fact, it is FinTech that will financially include people rather than financial inclusion will acknowledge FinTech. We have seen how FinTech in form of JAM (Jan Dhan Aadhar and Mobile) trinity has proved to be a game changer in reaching out to people in need during pandemic period through KYC verified accounts. India has done quite good in access dimension of financial inclusion, however, its usage and quality dimensions still need improvement in which FinTech can be a game changer. The wider objective of FinTech is to serve the financial excluded segment of the society through its cost effective technologies, digital products and quick approval of credits to small and medium enterprises who were quite neglected by the traditional financial institutions due to cost and risk constraints. Unlike the traditional banking institutions, FinTech, since their initial stages have played a significant role in proliferation of financial inclusion through innovative business model including the products such as wallets, pay later solution, QR based payment, low-cost insurance, collateral free credits for lower income groups, who were earlier unserved or under served by financial institutions. FinTech is doing far beyond payment and microcredit products and are leveraging technologies to design, customize and distribute financial products that suits lower income groups fulfilling the agenda of financial inclusion. Encroachment of territory of financial institutions has created a kind of disruption in their working, leading to re-examination of their business model.

FinTech and Banking disruption

In last few years, financial technologies have developed rapidly as compared to technologies in other sectors. Financial technologies have become the backbone of present financial system and it even managed to establish as a separate segment as “FinTech” and have influenced the conduct of traditional way of financial service sector.

The traditional banking has seen major disruption in its operation in last couple of years starting with financial crisis of 2008 followed by advancement of in financial technology. In fact, it was the joint effort of IT professionals and sacked bank professional during 2008 financial crisis that gave rise to FinTech startups for resolving customer problems[2]. Financial crisis has resulted in loss of trust of customers on traditional banking and heavy regulatory and compliance requirements by financial institutions impacting their image and profit. This gave an opportunity to digital finance and user centric financial services to evolve.

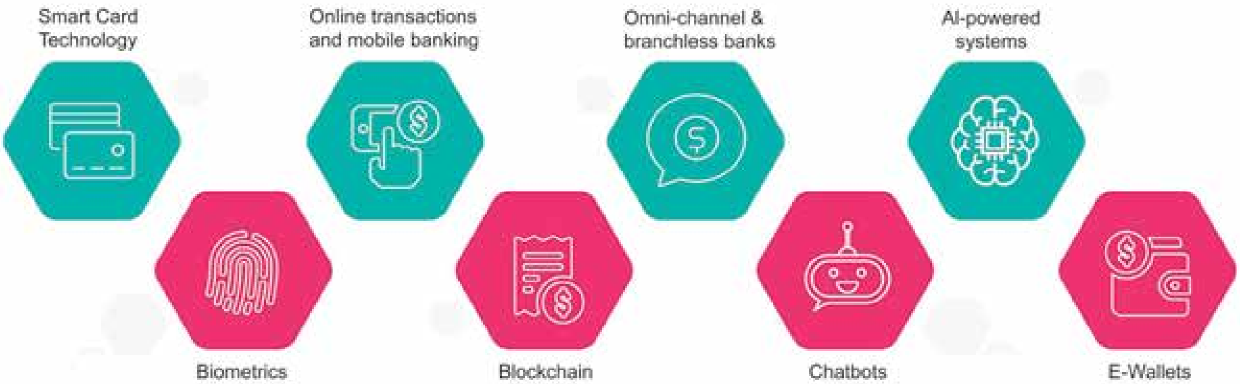
Disruption in banking is not new, financial institutions have faced many disruptions earlier like introduction of internet banking resulting in fewer visit of customers to bank, emergence of smart phone applications made banking transactions on move. This made ATMs, plastic cards and physical interactions with bank irrelevant. (Abdullah, 2017). In the current disruption, banking has fragmented into distribution business and credit provisioning.

It is inherent business model of traditional banking institutions and its major flaws that has given rise to FinTech. Delay in transaction process, working hours, effect of inflation on saving and inaccessibility due to geographic and legal boundaries that are impending banks to compete with FinTech. According to Abdullah (2017), overall banking revenue around 10-40 percent will be at risk by 2025 due to FinTech innovations outside banking institution. In today’s digital financial ecosystem, it is not at all required to be bank to provide banking services. FinTech are carrying out savings, investments, credits, insurance etc. at cheaper rate which were earlier the sole responsibility of financial institutions. FinTech are providing better rate to their customers as they don’t have to bear administrative cost & like traditional brick and mortar banks. According to PCW report, 70 percent of banks reported loss of market share and increased pressure on their margin due to competition given by FinTech firms (Abdullah, 2017). Traditional banking is also lagging behind due to core banking mechanism which are decades old and not able to keep up with the requirement of the modern consumers.

It is not true that banks have totally neglected digital financial innovations or customer centric approach to accommodate in its business model. Banks have incorporated e-wallets, mobile banking, smart chip technology, biometric sensors, online transactions, branchless banking (digital corner), customer service chatbots, artificial intelligence, machine learning, and block chain technology in its financial service, however, its rate of accepting digital technology is much slower than the FinTech firms. Figure 3 clearly explains the impact of FinTech on traditional banking business.

[2]The FinTech Magazine, 2022.

Fig 3: Impact of FinTech on Banking Industry



Source : Muzykya, 2022

If the traditional banking goes with same business model and same speed of digitalization, then future is more upsetting. Decentralize Finance (DeFi) is about to enter in financial market which may end the requirement of conventional banking. It encompasses wide range of services like decentralize exchange and credit application. It is loaded with the advantages like flexibility, transparency, removing borders, interoperability, speed and accessibility. It has also raised the challenges for financial regulators, policy makers and law enforcement agencies as Decentralize Finance will be unregulated and may also result in anonymous participation. It is also most likely that few FinTech will plunge to form their own banks. There are challenges to banking sector from FinTech companies but only if the banks remain traditional. Banks adopting FinTech innovations to remain relevant and future course of regulators will be a deciding factor.

Way Forward

The rapid transformational changes brought by FinTech in financial sector has created disruptions in functioning of traditional financial sector impacting its profit, image and security, however, the concern of overtaking of financial institution by FinTech is still a long distance. It is still not evident that FinTech has become biggest sign of danger for banks but the claim cannot be neglected in future and it depends on steps taken by banks in next couple of years to counter the FinTech. Till now, FinTechs are working only on a small niche, then what bank works on but future is unknown. Banks should not wait and watch rather it should take prompt action on the lacuna and issues which have provided space to FinTech to enter into their zone. To make the traditional financial institutions free from FinTech disruptions in future, it must work on the concept of 'SECURE' which include aspect like Security, Education, Customer, Undertaking, Regulation and Evolution for securing its future from FinTech.

Security

Security of customer's funds and their personal data has become one of the main concerns for the banks in the era of FinTech. Customers still prefer banks for the security reasons and the faith that has developed for banks in the decades. Banks should rely on its in-house application to provide its digital products rather than depending on third party.

Reserve Bank of India has directed banks to trim their relation with FinTech for third party products, especially for providing credits through digital apps. Security and privacy of customer should be prime focus of the financial industries as the cybercrime is at its peak and FinTech companies are one of their common targets. RBI is thinking of setting up of fraud registry to create data base of fraudulent websites and phones which will prevent fraudsters to repeat the crime once black listed. As per the Kaspersky, a cybersecurity firm, Asia pacific is going to witness an increase in cyber attack through Androids and iOs devices. The FinTech has become usurer of modern era through its loan app which provide hassle free loan without much documentations leading to debt trap with a processing fee of 15 to 25 percent, 182 to 325 percent of interest rate and recovery rate of 90 percent in case of default and their net profit reaching almost 25 percent. It has also been traced out by the security agencies that such apps are operating with proxies directors and call centers based in China, Pakistan, Bangladesh, Hong Kong etc. converting the extorted money to cryptocurrencies and transferring them out of India.

Expert, Education and Training

Traditional financial institutions in India are facing a huge crisis of appropriate skills to handle the present scenario of techno driven financial system. Most employees all over the world and in India lacks desired financial skills to succeed in the financial sector and recruitment of the right talent in financial industry is a big challenge in country like India. These are some of the loopholes, where FinTech has stood ahead of traditional banking system. In the present technological environment of financial system, we require digitally literate employees at front office who can understand customers' problems and digital experts at back office who can solve it swiftly. Banks are struggling for highly skilled staff against both FinTech and Bigtech. It was pointed in the 2020 report of United Kingdom Financial Service Skill Commission that there is need to develop skill like digital literacy among all workforce and more specialized expertise in the form of data analytics and software development skills from digital side. Creative thinking and coaching from behavior side will add further value. The future of banking will be less about traditional relationship management and more about customizing digital services and this is where FinTech seems ahead as of now. Financial institutions need to take proactive approach in identifying future skill requirement that can help them to cope up with rapid technological and societal changes. There is requirement of retaining and retraining of financial workforce to reskill and upskill them for future competition with the FinTech firms.

Customer and Communication

Customer is the axis around which the whole financial service revolves. Customers are now more service centric where they expect hassle free and cost-effective services at their fingertips. Customer base is the back bone of traditional financial services and banking sector are constantly looking for ways to provide best security to them. It is this customer base that FinTech aspire to snatch from banking industry. The way FinTech are providing financial services with the help of technologies, it is most likely that customers will be attracted towards them. It is the call of the hour that banks should take proactive steps to provide cost effective, swift and fraud less customer service using new technologies like chatbots to interact with customers. Artificial intelligence and machine learning should be used for fraud detection, smart chips, biometric, e-wallets etc. Banking industry should take a step forward for providing smart card, omnichannel banking and customization of services that makes customer service attractive and convenient. Communication with customers is vital part of customer service but over communication may lead to erosion of brand image and customer faith in the institution. Communication within institution is as important as communication with customer. It helps the staff to be updated with the recent developments in the financial environment. It also helps in dissemination of products and services as per the plan and target of authorities, however, unnecessary and frequent propagation of plan may lead to disinterest among staffs. Two-way communication should always be welcomed in the banking organization which helps the back office to design the products and services as per the customer choice taking the feedback from the front office.

Undertaking or Merger or Alliance

There are various conceptions that FinTechs are disrupting the business of financial institutions and have impact on their profit and image. Though the FinTech has entered in the business of financial sector which was earlier secured for banks but it will not be a cakewalk for FinTech. At present, both banks & FinTechs have their are advantages and disadvantages. FinTechs are armed with digital innovation and customized services, whereas, banking institutions are loaded with large customer base and vast experience. There future will depend on the steps they take against each other or with each other and may think for alliance or merger to see a combined effect. Alliance, merger or other form of cooperation can produce many benefits for both parties, it will enhance the brand reputation, expand the digital banking functions, lower capital expenditure, increase the reach of banking in younger generation and new geographies leading to more financial inclusion, lower the cost of business by reducing direct public dealing and diverting the human resource towards more productive works like NPA recovery and searching new avenues for credit supply.

Regulation

It has been observed that there is no single regulatory framework for FinTechs in India due to its overlapping and non-linear business model. It has also been observed that the regulatory initiatives that are intended for customer safety and suitability always face obstruction. Financial regulators are facing extreme challenges with the emergence of FinTechs due to their dynamic nature of services. As FinTechs have become an integral part of Indian financial system, so, it is the call of the time to reorient our regulatory requirements which ensure both swift digital innovation and security of customers' funds and data. Indian legislation and financial regulators have to do a lot of homework to bring FinTech under single, all-encompassing regulatory framework. With the increase in FinTech business, the boundaries between financial and non-financial firms are getting blurred and geographical boundaries in the era of FinTech are no longer a major constraint. We must realize that the regulation of complicated nature of FinTech business and traditional financial institution can be done in parity through use of technologies like Regulatory Technology (RegTech) and Supervisory Technology (Sup Tech) that can handle complex regulatory and supervisory requirement such as AML (Anti Money Laundering) and KYC (Know Your Customer). With the help of these technologies that uses data mining, artificial intelligence, machine learning, automation etc., this task may be accomplished.

Evolution and Innovation

Until recent time, the customer has to move to bank personally in need of financial services but today scenario has totally changed due to emergence of digital banking. Customer's expectation is changing exponentially in the evolving digital financial market where they have variety of options for financial services where innovations not only lead to success but also sustain the survival. Traditional financial institutions must plan to focus on digital product innovation to retain the customers which are migrating towards FinTech due to better service options. Innovations in banking sector is more than adopting new technology, it requires a paradigm shift in the institution's mindset and engagement across all level of business. In lack of such ambitious vision, banking may feel acute disruption from neo-banks and FinTechs. Innovation enables banks to meet changing expectations and leads to streamlining internal process and helps in maintaining market share. Innovation in banking industry should focus on customer centric services which are fast and efficient with flexibility and convenience. Banks should focus on changing its operational model to make it suitable for changing digital environment to deliver better products and services. Banks should learn to tap its brilliant talent pool as it is evident that it was collaboration of IT professionals and sacked bank professionals after 2008 financial crisis that gave rise to FinTech.

Conclusion

It is true that FinTech companies have entered in the secured zone of banking companies. Banking sector has experience of decades and even centuries. Banking sector have large customer base and time-tested regulations which FinTech still lacks. Banks should remember that it is loophole from their side that has given rise to their competitors, therefore, their approach in reading the pulse of the customers and accepting technologies should be more accommodating than their competitors. FinTech has played a major role in financial inclusion in the area where banks have constraints due to resources and regulations. The scenario has changed after 2008 financial crisis and has taken a paradigm shift after COVID-19. It is prerequisite of time to be more customer centric and tech savvy than to earning profit from traditional brick and mortar banking. It will be a wrong perception if we view FinTech and banking as two different entities. Banking sector has to invest in research and development and has to improve its human resource to handle the complexity of financial technologies like blockchain, artificial intelligence and machine learning. The banking industry has to think of new partnership model with these companies as it will be more profiteering for both as competition of a bank is not from FinTech firms but from other banks which are leveraging FinTech better.

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BANK QUEST THEMES

The themes for "Bank Quest" are identified as:

1. October - December, 2022: Growing importance of co-lending in Financial Intermediation
2. January - March, 2023: Increased footprints of Financial Planning and Wealth Management
3. April - June, 2023: Competence based Human Resources Management in Banks
4. July - September, 2023: Digital disruption - Challenges and Opportunities