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# ANALYTICAL STUDY OF FINTECH IN INDIA: PRE & POST PANDEMIC COVID-19

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Received: 07<sup>th</sup> May 2021 Revised: 04<sup>th</sup> July 2021 Accepted: 17<sup>th</sup> August 2021

Abstract: India has testified to an extraordinary shift in the very basic life of humane because of the improvements happening in the technologies. Every individual gets a fair amount of exposure to varied types of technology and its emerging trends. One of the influential elements in the Indian Financial Sector is a new mysterious term called FinTech. FinTech ventures have pointed to tremendous remodeling in administering financial offerings by questioning the very existence of the traditional financial institutional framework. Further, various difficulties followed by coercion come to the awareness, and mysteries began to resemble regarding the effects of FinTech on the Indian Financial System. The earlier pieces of evidence suggest that research overlooked the impact of FinTech on the Indian Financial Sector. This study provides insights concerning FinTech in India and its effect on the Indian Financial Industry. Moreover, the idea is to have a more immeasurable knowledge of changing landscape of the financial sector due to advancements in FinTech. An empirical data has collected using the qualitative method from three different sub-sets. This sub-set includes - professionals from FinTech ventures, experts from financial institutions, and end-users of the financial sector. The study exhibited that there are diverse factors responsible for altering the landscape of the Indian Financial System. These factors stimulate the customers to adopt FinTech venture services over traditional financial institutions. Further, the results exhibited that the adoption rate of FinTech is less before the global health outbreak but is very high and penetrative after the crisis. Also, the results follow a positive association between the FinTech adoption by the end consumers and the global health Pandemic COVID-19 outbreak. Thus, it implies that the adoption rate of FinTech has increased tremendously, which indicates a more financial inclusion and evolution.

**Keywords:** AI: Artificial Intelligence, FinTech: Financial Technology, FIs: Financial Institutions, IFS: Indian Financial System, MI: Machine Intelligence, ML: Machine Learning, NFC: Near Field Communication, NPA: Non Performing Assets, OTT: Over The Top, P2P: Peer-to-Peer.

# 1. Introduction

This study commences with the research problem by presenting a concise introduction regarding FinTech and its evolving landscape in Indian Financial System. It explains the purpose of this research in addition to current studies. Also, it presents the research objective to be analyzed while accompanying the study. The scope and the structure of the thesis are articulate at the end.

#### **Problem Statement**

India is witnessing a dramatic shift and disruption in the operational model of the numerous sectors due to the elastic headways in technology. Every indivisible physique has been hit or overwhelmed by the night-loving technology unfolding in an assortment of different ideas. Besides, the IFS is not a distinct one as it has testified numerous reformations in the governing ordinance and the functioning of the traditional financial system. The agile technological advancement has derived the Indian financial industry to the digital pipelines continuously in FinTech. FinTech is an amalgamation of Finance and Technology.

In more realistic terms, FinTech is the real-time application of evolving technologies in financial offerings. It is a new passageway of the marathon to enter into the resilient financial world. It has risen remarkably and headed to immense remodeling in the financial system. Also, it is a tech trend that stimulates progress & resistance in the activities of brick-and-mortar financial institutions. Presently, the sector demands technology to decide the best survivors of the potential future markets. FinTech is promptly on its way to recast the industry and, India is no long-drawn standing behind by leveraging the latest technology from other countries. India is now strengthening innovation with the back of unique start-up plans.

The dissertation will intend to gain an impression and studied extra learning on FinTech in India and its response in the Indian Financial Sector. The study is to perceive a more extensive view of the vital role of FinTech in assisting the IFS before and after the pandemic. Furthermore, to interpret an extreme knowledge into where the FinTech sector is now and where it's progressing.

#### **Research Background**

This analytical study intends to analyze the FinTech realm in India and examine the impact of FinTech on the IFS ere and subsequent pandemic COVID-19.

The ever-changing landscape of information technology commenced winning its toes in the realm of the IFS by embracing its settings inside its strings. This novel strain is designated Financial Technology or FinTech. Despite, it may relate that FinTech is something new but, in actuality, it encompassing a quite remarkable background. It has been around since the progression of contemporary civilization. Further, it is critical to insist that traditional financial institutions and emerging FinTech ventures are not genetic litigants. These FinTech ventures are based tediously on the financial institutions for capital funding and back-office associations to remit their aids and outputs. Contrary, financial institutions are investing in FinTech for leveraging the evolving technologies to execute innovative approaches. Moreover, the evolution

in the global economy presents it more manageable to grasp the ever-growing desire for more reliable and more courteous assistance.

The IFS has encountered a dramatic evolution since 2008. After the Subprime Mortgage Crisis, the finance industry was experiencing a higher and increasing rate of Non-Performing Assets (NPAs) in line with the regulatory compliances. The tough assents and distrust in financial institutions of yesterday lead its way to the future in the form of better and efficient development of technology embedded systems as FinTech. FinTech was a new concept but very powerful to exploit the functioning of traditional financial institutions. It helped institutions in providing an innovative way towards a reviving stage from a sluggish functioning industry. FinTech is revolving to bring a revolution in the world of finance.

The 21st century is confronting the emergence in the sphere of FinTech that includes a linear impression on the IFS. The tech waves in the financial industry have grown and revolutionized over the past few years. Also, the financial institutions have captured the high market momentum. The digital disruption resulting in vital amplification in the efficiency of financial institutions, such as bringing innovation in financial services and assets, modifying the operating business model, & user-friendly approach. The ongoing framework of the IFS is much efficient than before and, looking forward to many much more effective ways to explore out.

Shortly, the IFS endured to face and intercept the dynamic drift of technology, including Artificial Intelligence, Blockchain, Cloud Computing, Data Science, etc. It helps to enhance the financial base of India not only in one way but also by growing its branches in a diverse way which can alter the FinTech landscape of application and innovation. FinTech is ubiquitous to all the applied technology of finance. The penetration of technology from contactless payment systems to Robo-advisors assistance has taken up a deep dive in the finance industry. In India, FinTech looks like a promising partner for the rise and shine of the swiftly developing financial sector by presenting the world with globally leading technology-adapted FinTech Hub to rethink and reshape the future.

Further, India has inscribed itself in the FinTech 4.0 era due to advancements in the FinTech sector that latterly exerted essentially because of deliberate government strategy judgments in commercial expansion. The revolutionized tech systems are capturing and fighting for their market share on broader grounds. The association of IT, traditional financial institutions, and FinTech ventures are leading the wayfaring at the financial bleeding edge. Usually, these are three different roofs of a building and creating pressure on one another. But in actuality, these are the red-handed crime partners serving as the identical pillars forming a base for a better tomorrow.

Therefore, this dissertation aimed to analyze the impact of the rapidly transforming landscape of FinTech in India and the vital role of FinTech in assisting the Indian financial system before and after the pandemic.

#### Theoretical Background

#### Determinants of FinTech & Innovation

Likewise other sensations, FinTech also has motorists and determinants that excite and encourage the tech-trend and incline this sensation towards a mega-evolution. Numerous bases exhibit identical

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traits from distinct viewpoints. Every determinant has a different role, such as some influence the financial innovation, some impact financial inclusion, and some look after the urge for businesspeople to incorporate Fintech venture among others.

Generally, the prime determinant for the continuation of a commercial pursuit is profit-seeking. It is an inclination to launch novel and well-operated products, services, systems, and organizational arrangements. It will bring cost efficiencies, mitigation of risk, increase customer delight, etc. It can happen with the in-house R&D initiatives or by leveraging tech assistance, in which profitable results will become an innovation of a new era. Consequently, it will bring financial innovation from the outside world.

Further, the regulatory framework articulates distinct footprints in the sand for limiting the innovations and their consequences. The more eminent assessment arrangements are another determinant that leads towards a search for more innovative tools to lower the transaction cost and service charges. The blend of financial assessments and regulatory framework is the stimulus for novelty in the financial industry because stringent and rigid processes of traditional institutions make it impossible to satisfy the need of the customers in the future. Thus, the dodge against conventional facilities leads to novel settings of technology in finance.

Another determinant is the demographic factor for the evolution of FinTech. Nowadays, the millennium generation is highly exposed to FinTech and becoming a loyal customer base. Additionally, the inefficiencies of the capital markets are the provocations for innovations that systematically eliminate the void and illegal activities. Further, the variations in the macroeconomic obligations of the financial ecosystem are the primary element for the progressing innovative solutions to mitigate the risk profile exposed on the consumers of the finance industry. The circumstances of uncertainty in the operations are the stimuli for innovators, who constantly attempt to meet the altered economic balance for setting up new equilibrium by the waves of innovation.

#### Tech Print on Financial Institutions

FinTech ventures have bestowed an iconic tech print on the traditional financial institutions by targeting their prime aspirations of payment and lending services by implementing automation and innovation for alike and comparable services. The sophisticated computing adaptability supports the digital age transformation by disrupting and reshaping the existing FIs landscape. Although the traditional financial institutions are transforming to the digitization of every single element, FinTech players are apt to ruin the client-institutional relationships. However, the tech print is so hard to imitate in the traditional financial institutions, but they need to chase it to sustain in the financial market.

FinTech ventures are becoming the stepping stones for the new era by reshaping the conventional systems. These are grooming and mushrooming themselves in cutting-edge needs such as mobile payment and lending services. In traditional financial institutions, such mechanisms are potentially a hurdle for lagging in the operational evolution. Thus, they need to redefine their strategic plans for tough rivalry. Moreover, the internet stigma has evolved the financial industry via developing the

financial markets and growing competition in the form of a competitive market for new entrants serving novel settings in finance such as crowdfunding platforms, P2P platforms, etc. Additionally, this FinTech is creating financial inclusion footprint over the largely untapped markets.

Further, some academicians argue that digitization influence the relationships among client and service providers. The digital settings enable customers for direct interaction and can potentially eliminate the interference of any third-party financial institution. The traditional financial institutions or other financial intermediaries can only act within the sphere of back-end pursuits and managing its dilemmas.

#### Relationship of FinTech and Financial Institutions

The association of FIs with FinTechs is necessary for the smooth functioning of the financial industry. These both go hand-in-hand where financial institutions act as a stimulator for providing the market facilitation mechanism, customer base, etc. Moreover, other factors prove that the association of FIs and FinTech is equally profitable to both parties. Formerly, banks are excited and eager to have tie-ups with FinTech for accelerating innovation mechanisms. It employs monetary resources to achieve a competitive advantage and a loyal customer base because the differentiated products are in high demand.

Further, the enormous cost outflow is another factor for the alliances. It also provides pilot solutions for new learning's in the work culture of FIs. In contrast, FinTechs endeavors to target customer's trust and likelihood, resources, guidance, marketing through FIs products, the extensive client base, and other insights related to the financial industry.

Nevertheless, there are specimens and acumens concerning a competitive rivalry among the FIs and FinTech. It exhibits that FIs have rivalry potential with the emerging ventures due to their enormous capabilities, such as the large chunk of funds which is an essential source for R&D and FinTech is also dependent on this funding through FIs. Moreover, FinTech's services provided are stringent to regulatory compliances possessing norms in diversified verticals. Further, the leading competitiveness lies in the digital integration that happened in the large FIs.

#### Financial Stability and FinTech

Financial endurance and solidity in a financial system exhibit its aptness to expedite the economic representation instead of obstructing the enforcement of an economic system. The stable system attempts to keep the financial equipoise by diffusing the negative implications. In the purview of financial stability, the significant components are the security of client data, the soundness of the system, and customer satisfaction. FinTech is creating a business model capable of managing the risk, ensuring the control and reporting standards. It safeguards traditional financial institutions from fraudulent activities. It also attempts to create a secure network for the transfer of various financial offerings by financial institutions.

FinTech is acting as a financial stability enabler by assisting in providing the stability criteria and methods which can easily counter the variations of the financial sector. This trait helps to exhibit the

soaring systems of soundness and customer satisfaction. However, there are assertions that the growth of FinTech influences financial stability in the long run. The extensive extension of FinTech ventures, the more the influence on financial stability. Thus, stringent monitoring is necessary for the supervision of the BM of FinTech.

#### Purpose of Study

In India, FinTech is one of the swiftly evolving industries line up with the entrepreneurial and start-ups ecosystem. The highly polished technology is possessing an influence on the Indian Financial Industry. However, FinTech is subject to the extraordinary developments in the dynamic ecosystem that influence its traditional traits and leading to novel prototypes. It can join with different approaches of a single framework, such as the drifts in operating functions, technical upgrades, and the serving platform. It reflects the novel degree of traits such as being flexible, resilient, and generalized. It has disrupted the financial base and become a subject matter of prominent concern for the government.

The idea of this dissertation has originated from the continuous evolution of FinTech assent and application in India. The effectiveness of financial services and operational model of the Financial System in India reflects an adapting attitude towards FinTech. Hence, the notion that evoked my concern is to analytically examine the FinTech realm in India and the impact of FinTech on the Indian financial system ere and subsequent pandemic COVID-19.

Further, the heightened expectations of scholars, academicians, and researchers regarding limited and rare literature on the patch of FinTech in India, prompts me to study the critical facts on the role of technology-enabled services in the Indian Financial System.

Moreover, my academic background with a professional certification in FinTech during my undergraduate degree program incites me, and since, then I got a keen interest in analyzing and exploring the innovations happening in the galaxy of FinTech.

#### Objectives

The composition of FinTech at a large area is a competitive rivalry for traditional financial institutions. It exhibits direct competition by FinTech startups and ventures to financial institutions. However, in our study, we can ascertain it as an indirect influence on the traditional financial institutions because the application of tech trends in the financial industry has two distinct perspectives. FinTechs are here to transform the way traditional financial institutions are operating. FinTech is providing more personalized solutions for lending and payments and eliminating unnecessary intermediaries. Further, it is a convenient manner over a conventional way to access finance in one's life. Likewise, our study thrives on determining the changes by considering few objectives in mind.

#### The objective of this study are as follows:

• To analyze how FinTech has altered the landscape of the traditional financial system expressly associated with India's scenario.

• To analyze the influence of pandemic COVID-19 on the adaptiveness of Financial Technology in the financial sector in India.

#### Scope

Even though the study relies on a qualitative method for gathering data related to the post-pandemic scenario of the Financial Industry in India and FinTech applications, there are a few limitations of the study.

The proposed time for the research and government guidelines in an account of pandemic restricted the opportunity to explore more about the negatives and positives of FinTech to senior citizens of India. The study would have benefitted from a deep dive investigation about the concern of the elderly for adaptability and acceptance of a FinTech environment.

FinTech from an aggregate and global scenario has been motivated by tremendous technological innovation. The elements such as demographic traits and youth needs are there that need a spotlight to for addressed. People are craving tech-enabled solutions in almost every next phenomenon of their lives. Moreover, the role of FinTech as a market maker or market disruptor is another critical factor to be addressed. The mechanism of FinTech is highly complexed when coupled with rigid systems.

Several aspects need to be addressed and may present somewhat unconventional insights into FinTech's versatility in India. However, the small survey in this compact span has produced a constructive insight over avenues of technology.

#### Literature Review

It comprises a systematic review of the literature of the beforehand advanced data utilized in this dissertation. It explains FinTech in a more comprehensive viewpoint from the desk of estimable authorizations written by eminent academicians, researchers, industry experts, and scholars in the study domain. Secondly, it manifests concerning Pandemic COVID-19.

It is a signatory in India that the global investment in FinTech over the past few ages is staggering. India is witnessing an extension of twice the percentage examined to other nations. It potentially comes up with the new tech trends that reduce the entry barriers for new entrants by leveraging the open-source software and other technical advancements. It directly penetrates the Financial Institutions to reshape their processes efficiently that leads to open-up of growth opportunities. Financial technology is usually an affair with the fabrication mechanism that creates value and approaches concerning financial offerings. These offerings include investments, time, credit, and other valuable resources. In other words, the FinTech mechanism is identical to the commercial phenomenon of creating a marketplace for the customers. It involves a reliable connection with others in native languages with a swift transmission of knowledge and intelligence.

The approach of FinTech initiated with the evolution of technologies that are taking up the humans and produces humanoids for accomplishing the financial transactions. However, there are communicative and humane implications of utilizing humanoids. FinTech has modulations that are value additions for financial services. The enhanced integration of technology for the distribution of financial offerings

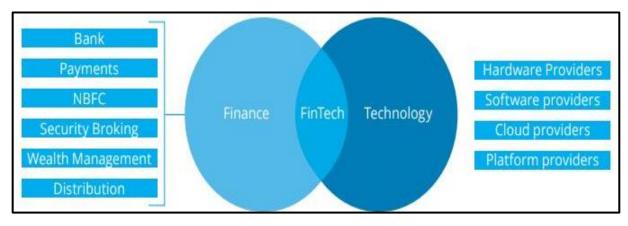
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necessitates appropriate monitoring, administration, and command to work in line with the compliance and reporting standards of the financial sector. Also, client data security and privacy act as prime issues in the evolution of FinTech. The tech mechanism enables robust authentication systems to avoid data breaches.

The innovative edges of FinTech have been swiftly jabbing the financial markets by saturating in the notches devised by the traditional financial institutions and significantly enriching user satisfaction. The range of available studies and literature sources reflects the need for exploration and the rise in interest in the approaches related to FinTech and its role in the Indian Financial System. Moreover, the correlation of financial efficiency through FinTech and the pandemic COVID-19 is crucial in India.

In the last few decades, the rising penetration of the internet has modified a wide array of industries across India. The market traction has shifted to the new age of automation by a swell in technology and resulted in the shrink of traditional manual systems. The finance sector isn't a miracle and therefore collaborates with the core domination of Information Technology. Earlier, the blend was known as Digital Finance. Nowadays, this widespread concept has positioned itself under the umbrella term known as FinTech. FinTech is a more comprehensive approach than just a combination of Finance and Technology.

The exact inference behind the meaning of the term is still unknown. However, scholars, researchers, and academicians have presented different views on the conceptualization of the term. According to (Gelis & Woods, 2014) "Fintech is the term given to financial service firms whose product or service is built upon technology, often resulting in highly innovative, pioneering services." Since 2014, FinTech has its pier only on the service plank of finance and highly centric towards the innovation that derives advancements by technology. It is the blend of finance and information technology for promoting financial offerings with the dominance of technology. Furthermore, "Fintech may be defined as technology-based businesses that compete against, enable and/or collaborate with financial institutions." (Punater & Shankar, 2016).



#### Figure 1: CONVERGENCE OF FINTECH

SOURCE:(Anand & Bhatia, 2017)

FinTech is a business processing unit that assist financial system for delivering effective customer service and support by entirely depending on the techno-enabled systems. As (Guild, 2017) stated that "Fintech companies – defined here as companies that apply technological innovations to increase efficiency and/or

expand access to the finance industry – have proliferated in recent years and are attracting increased interest from venture capitalists." FinTech is the corporation that utilizes tech trends by absorbing the waves of technology to provide a customer-centric approach in the finance sector. These companies are growing at a pretty firm pace and evolving overnight.

Some other scholars interpret FinTech "as a cross-disciplinary subject that combines Finance, Technology Management, and Innovation Management" (Leong & Sung, 2018). FinTech is an industry including companies that use technology for the efficient delivery of financial services. It is an emerging type of service in this 21st century (Priya & Anusha, 2019). Therefore, FinTech has a direct association with the innovations happening in the financial world. Nowadays, every single player in the market is appearing with tech-enabled solutions to catering the needs of the end customer by increasing efficiency and leading the market space to create a win-win scenario.

With the evolution in the space of finance, the adaptation of techno-enabled system increases and FinTech begun to recognize as "the novel processes and products that become available for financial services due to the digital technological advancements." (Baporikar, 2020). Moreover, FinTech is a different and independent sector that dominantly deploys technology to increase the efficiency of financial services and transform the business models. Therefore, "The ubiquity of the word "Fintech" i.e., a short structure for the financial technology" (Nair, Veeragandham, Pamnani, Prasad, & Guruprasad, 2021) is not merely a combination of finance and technology. It is considered as a factor of development in the financial realm.

#### FinTech Portfolio

The concept of FinTech is an umbrella phenomenon that embraces the pertinence of IT innovations. It contributes towards proper and novel financial explications to satisfy the necessities of enhancing the industry methods, cost-cut, intensifying effectiveness and versatility, etc. The general portfolio of FinTech comprises several different domains inside the realm of the financial industry.

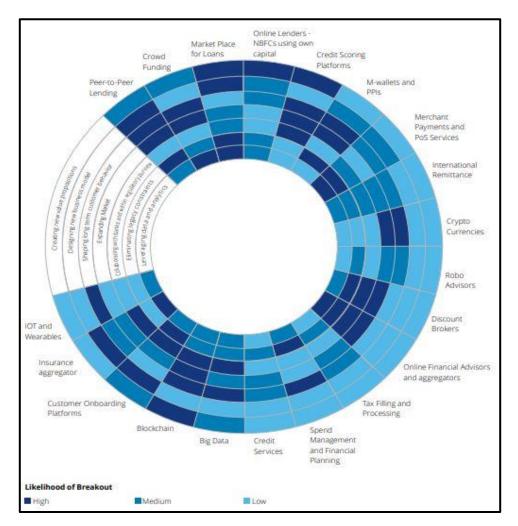
#### The different phenomenon of a FinTech portfolio with the various applications are as follows:

• <u>Financial Institutions Tech Trends</u>: FIs are the prime target group of automation experiencing a technological churn because of intensifying solicitude for cyber-security. These institutions align with FinTech are progressing and processing the novel offerings. The approach of FinTech is needed to meet the rapidly drifting customers' demands and the evolution of technological inclinations. Also, these are apt for providing customer-centric financial suggestions by baking and bolting individualistic needs. The tech enables solutions in the financial institutions allows them to serve more efficiently while maintaining customer services. These solutions are customized and personalized according to the requirements of the service provider and service receiver. FinTech creates a ubiquitous ecosystem in which customers have the power to decide when and how to communicate with the financial planners, can access their respective accounts at their fingertips through smartphones, laptops, ATMs, and even through their Aadhaar card. Yet, some access domains such as social media creating threats in the financial operations because of a lack of appropriate due diligence.

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- <u>Crowdfunding Platforms</u>: It is one of the most encouraging sections of the FinTech portfolio. It is also an emerging innovative FinTech platform that includes advancing capital or investment and capitalists from a considerable assortment of people principally for novel ventures and startups through an online procedure. The concept of crowdfunding is identical to the very conventional thought of helping a hand where a group helps a particular person financially. These platforms allow lenders to infuse their surplus funds into the proposed venture products for seeking higher returns. In return, the fund seekers are getting the funding for uniquely developing novel products. Nowadays, there is a lot of surge in the development of such platforms for making it convenient for the users to get funding in the highly changing world.
- <u>Customer's Asset Management</u>: It is a simple concept of managing the customer's assets or investments. The integration of IT has revolutionized the way it was performing earlier. Asset management operates as a sub-trait of an investment banker who invests and garners returns for customers. Nowadays, FinTech has directly influenced the basic phenomenon of managing assets. These platforms allow the investor to trade using the personalized statistics and insights available to them. They can also track all of their net worth from the assigned dashboards. Moreover, the clients can invest in profit-seeking great opportunities at a minimal transaction cost and convenience cost by utilizing the sample recommended portfolios, formulated with the use of algorithms and complex codes.
- <u>Machine Learning (ML)</u>: The adoption of Artificial Intelligence, Machine Intelligence, and other algorithms plays an essential role in the financial industry. FinTech uses the AI & MI codes to build and evolve software explications for formulizing data and producing a machine-learning system. This innovative software solution will facilitate a system to operate outwardly, signifying any command or directed to perform it. These are learning methods that store novel operating codes at every single minute by processing lakhs of algorithms. These AI-enabled & MI-enabled methods eliminate the possibility of human error and are very user-friendly because of their learning traits. These systems help in developing intelligent solutions for calculating the expected returns or losses under the different scenarios.
- <u>Digitized Real Estate</u>: The digitization of real estate is highly associated with FinTech concerning smart contracts utilization for the transactions. It serves as a bridge for joining the hands of FinTech with the real estate market. The digital platforms are working as a marketplace for real estate investors and project contractors. This platform attempts to fulfill the market gaps by uniting investors with real estate sponsors and promoters. The amalgamation of the digital world and real estate is novel, but the evolution is more than just a novelty. These also assist in procuring secured loans against real estate by putting them as mortgages. It provides a new market vertical where an enhanced version of crowdfunding is envisioning. Numerous platforms are serving the facilitation of constructing and executing the smart contract for the real estate dealings that eliminates the counterparty risk.

These various aspects of FinTech show that it is the need of the hour and not only in the financial setup but also in the other domains. Further, several approaches have revolutionized over time and formulating IT-enabled financial systems as their base for making huge profits.



# Figure 2:INDIAN FINTECH PORTFOLIO BREAKOUT

SOURCE:(Anand & Bhatia, 2017)

#### FinTech: Competitive Vs Collaborative

FinTech can be divided into two categories, i.e. (i) Competitive and (ii) Collaborative.

According to the report by Accenture (Rolfe, 2016), the competitive or disruptive FinTech startups enter the marketplace to compete upon the conventional financial institutions. These create a direct obstruction and aiming difficulties in the normal pathways of the traditional financial institutions and other financial service providers. Competitive ventures have gained accomplishment over the decade by concentrating principally on presenting innovative occurrences and advantages to their clients via technical offerings rather than charging the higher transacting cost for bluffing up their profits and organizational profitability. The competitive players are looking at supporting the client issues and providing optimal solutions. Further, services are automated and upgraded day by day to improving and enhancing the customer experience.

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The other side of the FinTech world has collaborative startups that are attempting to bring an evolution in the traditional financial institutions. The collaborative FinTech Startups are those which principally focusing on conventional financial institutions as their potential consumers. These ventures avoid the fashion of rivalry and will always thrive for interacting, guiding, and provides effective financial solutions to traditional financial institutions to develop their market stand and customer engagement. Nowadays, these collaborative ventures have dominant support from government initiatives and policies. These assist conventional financial institutions in uniquely innovate their monetary offerings. It provides supports to rectify their BM more appropriately and flexibly. It leads to catch up with the new tech trends at ease in minimum losses of resources while eliminating the uncertain events. Further, collaborative player accommodates to lessen expenses, clarify the methods concerning the use of high-tech trends.

The nature of competitive ventures reflects as a rivalry in their initiation phase but, as moving forward towards the maturity phase, they end up with collaborative efforts by aligning with the traditional financial institutions via merger, acquisition, alliances, or strategic associations. Further, the conventional financial institutions who are associating via any mode with the FinTech ventures, collaborative or competitive, can leapfrog the rivalry in the marketplace. They become the enablers and market creators by providing innovative solutions matching up with the higher expectations of consumers emerging from the subconscious of their minds to simplify regular pursuits.

#### FinTech Adoption and Trend

The developing Indian economy, novel innovations as well as evolving technologies have transformed the Indian Financial System. FinTech has changed the consensus of operating and delivering financial products and services. Nowadays, the hype in FinTech became a broadly adaptive approach and a competitive ecosystem to the traditional financial institutions. According to (Vijai, 2019), "Fintech industry change for the financial services in India and its fastest growing fintech industry in the world" & "FinTech adoption in India has increased significantly over the last two years." The study concluded that the India is the leading country in the development of FinTech in the world and in last few years, the adoption of Fintech has increased at a remarkable rate.

As per the insights from EY's FinTech Adoption Index 2019, the adoption of FinTech in India has grown to become the market player from (52%) in 2017 to (87%) in 2019 and reached the second-highest rank among 27 markets globally.

Furthermore, (Hwa, 2019) asserts that EY has confronted a pool of innovation trends in the financial system operations. Also, the FinTech adoption rate is growing faster than anticipated. Consequently, India becomes the global FinTech adoption leader by operating above developing economies like Russia, South Africa, Colombia, UK, etc. Moreover, in terms of global stats, the average actual FinTech adoption rate had increased from (33%) in 2017 to (64%) in 2019.

In India, the awareness about the adoption of FinTech services is at its peak. According to (Hwa, 2019) "In both India and Russia, 99.5% of consumers are aware of FinTech services available to transfer money and make payments. The elevated awareness in India stems in part from the government's plan, announced in 2017, to decrease the amount of paper currency in circulation." Moreover, the report of (Findexable, 2020)

in the Asia Pacific region - under the regional race to the top of FinTech Hub states that "Despite the size and success of China's digital ecosystem platforms, it's India that currently holds Asia's fintech hub crown. The Index tracks 11 Indian cities compared with 6 in China."

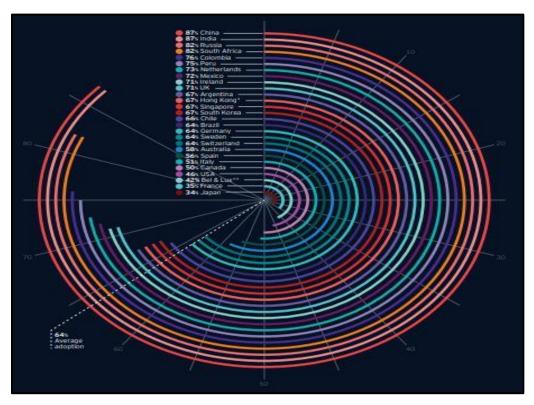


Figure 3: CONSUMER FINTECH ADOPTION ACROSS 27 MARKETS

*SOURCE:*(Hwa, 2019)

Figure 4: SNAPSHOT OF TOP 20 FINTECH HUB

As per the (Findexable, 2020) Global FinTech Index of 2020, the Indian FinTech Hub cities among the top 20 are Bangalore stands at 7th, Mumbai stands at 10th, New Delhi at 16th. "They might not be at the top of the tables. Yet. But this group of countries is giving the old guard of financial centers a good run for their money - by showing what it takes to wage a fintech battle." Also, the study states that India is at the top of the wagers list.

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#### FINTECH'S BRAVE NEW WORLD

Top 20 Global Fintech Hubs

FINTECH RANK	City	Total Score 80.136 54.888 36.889 23.621 18.805 17.867 16.093	
1	San Francisco Bay		
2	London		
3	New York		
4	Singapore City		
5	Sao Paulo		
6	Los Angeles		
7	Bangalore		
8	Boston	15.795 15.616 15.063 14.778 14.616 14.470 14.419 14.293 13.958	
9	Berlin		
10	Mumbai		
11	Hong Kong		
12	Toronto		
13	Sydney		
14	Chicago		
15	Paris		
16	New Delhi		
17	Tokyo	13.783	
18	Tel Aviv	13.628	
19	Atlanta	13.150	
20	Miami	13.097	

#### *SOURCE:*(Findexable, 2020)

Moreover, considering the current scenarios, FinTech startups and related ventures are witnessing ample funding from venture capitalists and equity firms. A chunk of the fund helps for digitizing the whole ecosystem of the financial industry. It exhibits the genuine image of FinTech in India from a broad viewpoint. It shows the growth of FinTech startups in the nation that directly indicates the higher adoption and utilization rate. However, few academicians argued that it is not a compulsion that the growth of FinTechs is positively associated with the adoption rate because sometimes commercialization is critical than utilization but, they also say that there is some degree of similarities among them.

Perceiving FinTech as a holy religion for an enthusiastic entrepreneur is not a novel phenomenon. The eternal religion has the same faith by different civilizations. Similarly, entrepreneurs from diverse backgrounds are thriving to keep up with the emerging trends of the financial industry for proposing the central idea of advancing mercy to the shaky and unsettled commercial realm. The recent trends and policy initiatives support rigid growth in startup pursuits, financial inclusion, etc. The passing stepping stone for the initiation of robust and rigorous systems. Other than the prime objectives of FIs, there are various segments in which an extensive concentration can happen.

#### Importance of FinTech

India's FinTech market is now leading ahead around the world in terms of the FinTech Hubs. The influence of the financial sector and its catalyst function in economic germination has enriched as a global subject matter from the last few decades. However, this role has slowly drifted on the shoulders of the FinTech corporations that operate in the best interest of the economic growth by reducing the risk and cost such as financial risk, credit risk, transaction cost, convenience cost, etc. It can happen due to efficient utilization of IT-enabled tools and techniques, products and services, etc. (Zavolokina, Dolata, & Schwabe, 2016) exhibits that these FinTech are responsible for the smooth functioning and efficient build-up of the task widespread in the financial sector. This growing importance of FinTech in the economy has its sole base from the prime functioning of the traditional financial institutions that formulates an ecosystem of production and consumption, savings and investments, excellent investing decisions, and other financial planning's.

Further, the happenings of the FinTech realm serve all the potential and involved parties interested in the financial sector of India. The financial industry examines the shortcomings of taxation and regulation, unnecessary cost and market asymmetries, and even the overall market functioning. These are the market imperfections that create chaos in the economic system by ignoring optimal scenarios to be followed. However, FinTech attempts to create a pool of efficient mechanisms that ensures the smooth flow of funds beyond time and location, handling risk, and facilitate payment services.

FinTech marks the expressions of appropriateness by transforming the financial landscape concerning regulatory troubles, risk aversion, and financial imperfections to support economic growth. The pervasiveness of digital technology and demographics dominance modifies the way it is operating and accessing the finance of the new age (Schindler, 2017).

#### Landscape of FinTech in India

India's FinTech market is now leading ahead around the world in terms of the FinTech Hubs. However, there's a lot of scope for gradual and usual growth in the sector. India had proven itself as a tech-savvy nation and a nation of desperate development.

The entrepreneurial ecosystem of India reflects a positive impact on the growth and evolution of the landscape of FinTech. It allows the FinTech sector to become a vital aspect of the Indian Financial System by commencing and providing new consensus, customer support, and financial inclusion. According to the analysis of Deloitte (Anand & Bhatia, 2017), "Indian FinTech companies have the potential to reshape the financial services landscape in three ways." India has the potential to alter the landscape in the following manner – (i) FinTech startups are likely to reduce costs and improve the quality of financial services. (ii) The FinTech industry will develop unique and innovative models of assessing risks. (iii) FinTech will create a more diverse, secured, and stable financial services landscape.

Moreover, the report of Yes Bank Initiative (Nagpal & Jakhar, 2018), "Fintech in India is still an inchoate sector", but "the sector though is growing fastly. Fintechs in India are spread evenly (21%-27%) across ideation, prototype, early revenue, and business expansion stages. Given the vintage of most of these startups, it is quite commendable that 7% of fintech have already turned profitable." As time passes, the

new tech trends are evolving every new day. The sector will always be considered underdeveloped because of the dynamic nature of the technologies.

The study conducted by (Medici, 2019) "India's evolution as a progressive FinTech nation is not a miracle. It happened at the back of executing a four-point approach. This framework has led India to a FinTech revolution." The different approaches are – (i) Personnel identification by Aadhaar. (ii) Access to bank accounts under government scheme (PMJDY). (iii) Development of digital and scalable platforms like IMPS, UPI, etc. (iv) Integration of banks and fintech to innovate. Also, the study provides insights about the landscape of FinTech in India regarding 2035 FinTech startups - resulting in as 375 companies in Payments, 338 in Lending, 303 in WealthTech (Retail), 169 in Personal Finance Management, 108 in InsurTech, 58 in RegTech + Cybersecurity, and 684 in Other Segments.

According to (Trade, Maerschand, & D'costa, 2020) "Fintech landscape in India is currently at a crosssection where we have startups, some of the reputed technology industry players, accelerators, and incubators, government task forces who can quantify the significant possibilities. These can be in the form of Insurtech, lending, investment, blockchain, risk analysis, etc." Furthermore, the study shows the potential of India to maintain a status quo as per the global hub for inclusive growth and development. The attractiveness of the FinTech sector of India comes from the purview of numerous regulatory bodies and can provide opportunities to create synergy within the organizations. Also, "India is a dynamic destination as far as 'doing businesses' is concerned, it is best to look at identifying partners and collaborators who have the local market knowledge and access, to incorporate technology and innovation from Flanders." The global and domestic leaders operating together should also focus on the domestic customized needs of the largely untapped potential market of India.

#### Entanglements of FinTech in Financial World

The Indian Financial Markets are observing an accelerated development concerning technical advancements. FinTech is a hot term used in every niche of the financial industry. It influences every single bit of the business model.

#### India's financial sector business model can be divided into four broad categories, which are as follows:

• <u>Lending</u>: The most comprehensive expel that FinTech delivered to the universal economic system turned into immense innovation. Earlier only banks were permitted and had the right to carry out lending businesses with clients or enterprises (Nagpal & Jakhar, 2018). Consequently, an immeasurable way to obtain funds from the FIs is that people and enterprises have enforced all of the requirements vital for the loans. The essentials may include registration and ownership documents, mortgage property papers, and financial credibility certificates. Generally, FIs generate revenues through the means of charging month-to-month interest prices from their patron loans.

Nevertheless, the practice of lending from the FIs transformed into an unusual complex and troublesome for individuals and businesses. Particularly for individuals or small enterprises having a low score on the credibility certificate or without property for mortgage. Their chances for approval of the loan are low (Baporikar, 2020). Consequently, this has triggered quite a few limitations and difficulties for businesses as accurately as people in raising capital for funding business pursuits. To

surmount these circumstances, FinTech has delivered many applications and monetary aid to compose a brand new lending market, to cope with all problems, and meet the maximum number of the consumers' needs.

The principal initiative in the lending segment leads to the initiation of a peer-to-peer lending system. It may be evident for a revolution that works on a network of computers with numerous layers of firewalls. It serves as a common platform where the mobilization of funds can be happening by the activities performed by a debtor and creditor on the same grounds. Moreover, a peer-to-peer system provides a facility where the fund seeker can borrow funds at a relatively lower interest rate from various lenders other than FIs. On the other hand, the fund providers can diversify their investments by allocating funds to numerous fund seekers.

In the economic system, the creation of the P2P system has damaged the conventional shape of mobilizing funds. Though, it is not the destination for FinTech corporations because they need to reinvent and reshape things for their sustainability. However, some firms are trying to dominate this tech market by providing the "People Mortgage Financing" just like others.

• <u>Payment</u>: FinTech organizations had honestly created a brand-new leap forward with inside the payment transaction by releasing a collection of applications and online economic offerings with many distinctive styles of payment according to the targets and the desires of consumers. Nowadays, the need to visit the brick-and-mortar branches is eliminated because FinTech offerings provide the same at your fingertips. The bank user is not facing any difficulty in carrying out all their bills on every occasion and, anywhere they need in an easy, hassle-free, and quick way via many online economic offerings (Medici, 2019).

The peer-to-peer payment version is defined as the brand-new shape of the payment that allows the counterparties to switch cash from their financial institution bills to others' financial institution bills everywhere and anytime using the network services. The peer-to-peer payment mechanism helps to join the shoppers and the dealers collectively without the want of any third party. It helps in transacting over the web. Therefore, the usage cost of this sort of payment system is an awful lot decrease than the conventional one. Furthermore, the additional benefit this version brings to the purchasers is that it minimizes the bulky strategies inside writing and mailing a test or shifting bodily coins through the conventional banks. It solely maximizes the purchasers' benefits which include speed, convenience, and simplicity.

Nowadays, virtual wallets are the in-built component of a smartphone that operates using the technology. It holds the financial assets of a user in a digital form and helps to perform secure transactions with an easy interface. The motive to develop is to eradicate physical wallets, increase convenience, and construct a cashless society in the future. These generally work on the electric signals in the form of radiofrequency for transferring information of transactions from one institution to another or any nearby receiver point.

For utilizing the tech-enabled services, one has to install and register with the service provider mobile application. Afterward, he/she has to enter his/her financial cards and account details to

register with the online transaction services. Then the user can proceed to a transaction and selects the various other facilities according to the preferences. Furthermore, it's also handy and steady for the clients as they no longer want to hold across the physical wallets and may keep away from dropping coins or financial institution cards.

Consequently, smartphones have matured as a valuable instrument for promoting payments via websites. These are getting infinite updates for keeping their pace with the emerging technology and will support contactless payment systems for the youth and upcoming generations.

• <u>Savings & Investments</u>: In association with the development of credit and mortgage, the worldwide economic marketplace brings numerous innovations in the subject matter of funding. Hence, crowdfunding has become one of the maximum giant adjustments with inside the current years. It is a digitized way of performing peer-to-peer contributions which allow users to acquire money from family members, guardians, mentors, friends, or investors. It is accomplished using a website, specifically work with this motto. The advantages of using a crowdfunding platform are that the customers without any problems involve in fundraising by marketing their tasks or merchandise and get beneficial remarks in return. (Anand & Bhatia, 2017).

In fact, with a lot of competition inside the modern marketplace, it might be hard for start-up organizations to gain sufficient investments for expanding their thoughts and convey them to life. Crowdfunding is the most beneficial and saving desire for those organizations as it now no longer most effective can offer the way for the organizations to marketplace their thoughts attractively. However, it additionally assists in restricting the cost, which the organizations need to pay if they need to lease a guide organization. Besides that, crowdfunding is likewise a stable base of capital for start-up organizations because it no longer restricts the tasks wherein the traders can finance. Thus, the organizations can improve budgets fast and successfully from numerous traders inside the marketplace.

In brief, crowdfunding isn't always best to be a remarkable manner to assist the inventors, the startups, or the corporations to finance their tasks. Additionally, there is a powerful manner to assist them in validating their ideas, checking their work, accumulating opinions, marketing their products, and discovering the capacity. There are several crowdfunding websites to be had inside the marketplace. Thus, human beings want to evaluate the variations among every website online and take into account cautiously earlier than deciding on the appropriate systems for their tasks. Another crucial thing is human beings must try to draw as many traders as feasible for earning the quantity of required cash.

On the contrary, retail funding is likewise experiencing a length of innovation because it no longer most effective attention to investing in high-tech products. It also tries to limit the transaction cost for customers. Also, the high-quality features of smartphones can be considered for producing the high-tech systems, which may assist the frightful financial savings state of affairs of the younger generation. With time, FinTech start-ups have developed several budgeting programs to help the customers in managing their daily finance without regular tracking and adjustment.

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• <u>Personal Finance</u>: Personal finance has carried out tremendous enhancements nowadays with the massive aid and investments from economic FinTech corporations. FinTech corporations need to make non-public finance more energetic, more manageable to manage, more numerous transparent, vaster valuable, more inclusive versatile, and more prominent low cost for consumers. The device for assisting in coping with non-public finance may a considerably massive competitor to FIs. These are software programs that work in computer systems or smartphones. It helps people in making the selection for the usage of their cash accurately and appropriately, meeting their economic goals. However, the principal objective is to end up the pioneer device for the clients inside the marketplace, so it attempted to create a variety of offerings.

However, there are other approved personal finsancial support tools in the financial markets. It not only manages the impression on the daily finances but also focuses on assuring financial protection. It helps clients in managing the information regarding scams, errors, or omissions in the transactions. Notwithstanding the control in underpinning services, it can't allow the complete picture of the client's financial positions. The only motive is to attempt to identify and eradicate the mistakes, outcasts, or false charges. Thus, such applications are a premium choice for card users and other digital finance users.

#### Pandemic COVID-19

Pandemic COVID-19 is a novel respiratory disease spread across the world and started in the end of 2019. According to (WHO, 2020), "Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment." After that, the WHO stated this pandemic as a Global Health Outbreak Crisis.

As per the National Health Portal of India (NHP, 2020), "A cluster of pneumonia of unknown etiology was reported in Wuhan City, Hubei Province of China on 31 December 2019. On 7 January, the Chinese authority identified a new variety of coronavirus as a cause of pneumonia outbreak. It is different from any other human coronaviruses discovered so far and, the new strain is named 2019-nCoV. Afterward, on 11 February 2020, this virus is named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) under the disease name COVID-19."

Furthermore (UNDP, 2020) stated that, "the coronavirus COVID-19 pandemic is the defining global health crisis of our time and the greatest challenge we have faced since World War Two." From the initiation in the Asian economy, the COVID-19 has reached each part of the globe. "In the Asia Pacific region, which enjoys a high population of young people, we are harnessing the creativity and vision of young startups so that they can both, whether these hard times or come up with creative ways to solve the new problems we face."

Moreover, the (UN, 2020), stated that "COVID-19 can spread from person to person through droplets produced during coughing or breathing during close contact with an infected individual. Infection can also occur in direct contact when these droplets land on objects and surfaces around the infected individual and the other person touches these objects or surfaces, then touches their eyes, nose or mouth."

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The various perspectives were asserted by the experts, leading healthcare centers, and government officials concerning Pandemic COVID-19. Likewise, as per the insights from (MayoClinic, 2021) "Coronaviruses are a family of viruses that can cause illnesses such as the common cold, severe acute respiratory syndrome (SARS), and Middle East respiratory syndrome (MERS). The virus is now known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease it causes is called coronavirus disease 2019 (COVID-19)."

Also, the Government of India (MOHFW) states that "COVID-19 is the infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019." Coronavirus has diffused in India, resulting in a loss of the valuable resources of the country.

#### COVID-19 and FinTech

Around the globe, the Indian economy is considered a rapidly evolving economy. COVID-19 outbreak has influenced the growth and development of developing nations like India. The pandemic has risen fastly than any other macro-economic variable in the Indian markets and economy. This pandemic crisis has resulted initially in a recession of the economy, and latterly, into a sluggish economic market. However, Banking & Finance is one of the growing industries during a pandemic. However, India has emerged as a preeminent global player in the FinTech sector around the world.

The newsletter by (Tafti, Jariwala, Jain, & Gupta, 2020) stated that "The ongoing spread of COVID-19 has become one of the biggest threats to the global economy and financial markets. To contain the impact of the coronavirus outbreak, India, like many countries across the globe, is taking several measures." The measures are needed to overcome the impact possess by the pandemic in the Indian financial markets. Also, "The adverse effects of the COVID-19 pandemic are trickling down to major sectors of the Indian economy, with manufacturing, auto, retail, aviation and hospitality bearing the brunt of the lockdown", and the FinTech Industry isn't an exceptional one.

Furthermore, the outbreak leads to the rise in digital financial transactions due to the unpredictable circumstances amidst lockdown as there is "a boost through the Government, which has pledged monetary assistance to the poor via direct transfers to bank accounts."

Financial services in India have appealed to the public to "Go Digital" for financial transactions. "There are also a few areas that are seeing an uptick in digital payments by way of increased adoption during the lockdown. These include online grocery stores, online pharmacies, OTT players (telecom and media), EdTechs, online gaming, recharges and utility/bill payments" (Tafti, Jariwala, Jain, & Gupta, 2020). It reflects the shift from the old conventional to the new digital system by transforming the entire internal mechanism.

The study conducted under the Bharat Inclusion Initiative by (MSC, 2020) stated that "The early part of 2020 has been a nightmare for India. The rising cases of COVID-19, countrywide lockdowns, and fear of contracting the virus have taken a toll on the physical, mental, and economic well-being of the people". The study comprehended that FinTechs based on savings and investment segment of financial services faces difficulty. It happens due to the changed sentiments of the market and customers. The opinions forced

them to revised or reshaped their overall operations. The FinTechs has also represented a "No Month-on-Month" (MoM) rise in the new customer base. It has also lead to the lack of inflow of novel funds and funding.

The message from (PwC, 2020) conveys the harsh reality that "The FinTech sector finds itself at an inflection point as the world continues to tackle the socioeconomic fallout of the COVID-19 crisis." In a dynamic environment, FinTechs can gain opportunities for redefining the financial business models. "The consistent growth of the FinTech sector is reflected in investor sentiments. Before the COVID-19 outbreak, the Indian FinTech ecosystem witnessed a positive trend in FinTech funding activity" and follows the same pattern amidst and after the pandemic or in the recovery period. "While companies are working round the clock to adjust to the new normal and meet the challenges, there are many opportunities for FinTechs in the current scenario, given the strong need for digital and contactless delivery of financial services." It reflects the changing mechanisms developing in and around the industry. The report also highlighted that "In the post-COVID world, there is an immediate need to move towards completely digital, paperless and presence-less end-to-end processes." The significant rise of FinTech penetration and adoption has had an optimistic influence on the Indian Financial System.

# 2. Method

This chapter includes the theoretical framework that has a direct and indirect linkage with the phenomenon studied in the study. It also tells about the research methodology and the framework of analysis utilized by the author in this dissertation. It further includes data collection and analysis methods to enlighten the reader about the methods employed for producing outcomes of the study.

#### **Theoretical Framework**

"We define theoretical frameworks as any empirical or quasi-empirical theory of social and psychological processes, at a variety of levels (e.g., grand, mid-range, and explanatory), that can apply to the understanding of phenomena" (Anfara & Mertz, 2015). It explains the different theories articulated by numerous scholars, researchers, experts, etc., and is crucial in guiding the phenomenon for this dissertation. It is vital to the study since it assists in understanding the concepts within the scope of the research study. The research study includes the Disruptive Innovation Theory, Digital Darwinism Theory, Agency Theory, and Coopetition Theory.

#### Disruptive Innovation Theory

Clayton Christensen has brought the concept of disruptive innovation to explain how novel players in the market space can agitate settled businesses (Larson, 2016). This concept in finance has gained more prominence over the last few years as corporations like Paytm, GPay, PhonePe, and other emerging Fintechs have changed the landscape of existing financial institution pursuits. As per Clayton Christensen, It is a process in which an emerging entity continuously moves from top to bottom in the market and challenges the developed or existing entities. Moreover, in the scope of FinTech, it guides towards making strategic decisions with every novel evolving technology.

#### Digital Darwinism Theory

The report of (BearingPoint, 2014) applies this to the progression of business panorama while indicating that sustainability comes with adaptation. It refers that, nowadays, the exertion handled in a fast-paced atmosphere for the firm's sustainability can be overcome through the acclaimed scientist conjectures. Besides, this global health crisis has initiated a drive of digitization, and entities who resist will lack behind (Morris, 2020). Moreover, Darwinism is leading its way in the pandemic COVID-19 outbreak. Many of the traditional financial institutions and business pursuits are shifting and planning their roadmap towards survival.

#### Agency Theory

According to the study conducted by (Ismael & Roberts, 2018), the theory states that the managers called agents to hold more information than the owners. It creates a circumstance of the inability of owners for future predictions. It inclined towards reasonable behavior of owners and managers and both working towards wealth maximization. However, in the arena of FinTech, the managers are planning strategically to cooperate with the Indian Financial System to increase their adaptability and reach. Nonetheless, some traditional institutions will lookout to develop their in-house effective techenabled financial services. Moreover, our study's concern is regarding adaptability. It can improve by the application of the principals and agents approach.

#### **Coopetition Theory**

It helps in binary gains received by operating in the competition and concurrently taking the cooperation benefits (Bengtsson, Kock, Lundgren-Henriksson, & Näsholm, 2016). Moreover, it guides understanding the current scenario among the Indian Financial System and the FinTechs in India. Consequently, coopetition is a proper blend of cooperative or competitive approaches. Both Financial Institutions and FinTechs have mutual benefits, and some academicians exhibit this mutual benefit as a competitive relationship, while others as a cooperative relationship. However, both are looking forward to a similar mission and vision of growth in the highly dynamic environment by assisting and garnering the different facilities from each other and simultaneously possessing a perfectly competitive market.

#### **Research Questions**

This section outlines the research question as a fundamental question followed behind the process of the study as a whole. It is crucial to precisely determine the research questions in line with the main objectives of the study. For this research, the below-mentioned research questions are going to evaluate the FinTech and COVID-19 implications simultaneously.

#### In respect to this research, the main research questions are as follows:

- What are the triggers of FinTech that have altered the landscape of the Indian financial system?
- What is the role of pandemic COVID-19 on the adaptiveness of FinTech in India?

#### **Research Design**

The research design is a structure that assists in rendering direction for executing research most efficiently. It accommodates the study objectives by contributing the overall operational plan to be followed during the study. A good research design ensures that the collected information is relevant and in line with the research problem. The different class of research design relies on the need and scope of the study, which is into four different types: (i) Descriptive, (ii) Explanatory, (iii) Exploratory, and (iv) Predictive.

The exploratory research design strives to explore new acumens in the phenomena, to summon the subject, and to analyze the phenomena in novel enlightenment.

Moreover, it is used when there are very seldom researches accompanied to associate for erudition regarding the happening. The purpose of the exploratory study is to examine thoughts instead of testing hypotheses. Also, the exploratory research estimates if present theories can use within the particular phenomenon or there is a necessity to produce new fundamentals. Further, the exploratory method generally doesn't provide any absolute explanations for the dilemmas and provides only guidance and ideas for further study.

The research approach is a generic term for the inductive or deductive study method. It is critical to determine the appropriate concept because it allows getting a well-read judgment concerning the research design. These approaches are the techniques followed to collect and analyze the data. Further, it helps to determine the appropriate need in line with the research study. Usually, while learning the reason behind the cause, the inductive approach is more suitable in such a scenario. Likewise, this dissertation has also utilized the Inductive Approach. The theory is from using the investigation of experimental facts. The motive of the inductive approach is to analyze the prevailing scenario to produce more immeasurable knowledge regarding the nature of the problem. This approach is also compatible with qualitative research because it allows using a mixture of techniques to accumulate data by examining a sample of interviewees. It provides an excellent opportunity of conducting interviews with professionals within the financial realm to attain industry knowledge in a far more lucrative manner.

Further, the identification of data for gathering is a crucial part of the study. The methods are a quantitative method and qualitative method that includes numeric data and non-numeric data, respectively. These are the essential criteria for distinguishing a study under qualitative research or quantitative research. The quantitative technique is usually a logical and sound system that is in line with the generation of highly reliable results out of the findings. On the contrary, the qualitative method assists in getting a more profound knowledge about the nature of the problem. It reflects a thought of not analyzing the data statistically.

This study has utilized the qualitative method because it is a more suitable method and allows getting more profound knowledge. It helps to identify the triggers in FinTech that have altered the landscape of the Indian financial system and, the professionals in the financial industry help to receive remarkably accurate and valuable information.

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The research has its base in the knowledge gathered from the interviews to assess the adaptiveness of FinTech during COVID-19. Moreover, the inadequacy of literature due to the novelty of the influence of FinTech derives an in-depth investigation. Thus, the subject matter becomes an exploratory qualitative research study.

#### Data Collection

It is a procedure of assembling all appropriate data from numerous sources in a meaningful manner to uncover explanations to the research intricacy. It can be secondary methods and primary methods of data collection (Dudovskiy, 2018). This dissertation includes both the sources of data to fully understand the problem questions and the research objectives.

To gather the primary or first-hand data about how customers are adopting and attracting FinTech in India ~ an interview method of data collection is used. In this, the viewpoints of the interviewee are taken by asking questions. This research has formed semi-structured interviews for the opinions and actions concerning the subject matter. There is a need for various responses to get appropriate data.

Therefore, a semi-structured form is employed in which a researcher creates a listing of questions to ask members. However, the interviewer can add or subtract or modify their orders, depending on the discussions with the respondent. Simultaneously, the interview guide includes open-ended questions which provide the liberty to talk, and the participant has to explain in detail. These are helpful to develop extensive knowledge regarding the interviewees' views and ideas about the subject matter.

Moreover, Journal articles, book chapters, guides, organizational reports, consulting houses reports, newsletters, and websites are the secondary data resources. Most of the secondary data is from journal articles and statements. These provide thought-provoking information, especially in market trends. Also, the motivation to choose a secondary source is that the data about the FinTechs, Indian financial system, and future pursuits are confidential. Thus, the primary source won't be able to provide the same. Therefore, secondary source helps to evaluate and analyses the further actions.

#### Sampling

A sample is a calculable sub-assortment of a population. It is a representative selected for analysis on behalf of the overall population. A material sample should exhibit identical traits as its population. It is a universal target group from which the results are generalized. In a broad sense, the sample for this research study is the layman exposed to the FinTech ecosystem during the COVID-19 pandemic and other professionals.

A sample design articulates the technique utilized for collecting samples. It is developed before the collection of data and involves sample size. Further, a suitable sample is a necessity for acknowledging the subject matter of research. Generally, the determination of sampling is happening using probability or non-probability sampling methods.

The technique of probability sampling indicates that the possibility of denoting elected in a sample from the universe is similar for everyone, and collected data is usually analyzed statistically. Whereas, the non-

probability sampling methods exhibit that the likelihood of being selected in a sample from the population is not for everyone, and collected data is usually generalized but not on the grounds of statistics.

As already mentioned earlier in chapter one that the subject matter of FinTech is new, and few studies are preceding regarding FinTech and FIs in India especially. Therefore, the selection for the non-probability sampling method is more appropriate for this qualitative study. This research study has employed the Judgmental or Purposive Sampling Method (Non-Probabilistic Sampling) to gather data and executing the research by providing relevant outcomes. In purposive sampling, the judgment has a preference to determine the representative sample from the population. The researcher has to choose qualified and skilled professionals from the subject matter before the commencement of the interview. It helps to get a judgment for answering the research question.

It is an appropriate method considering the size and the scope of the Indian financial industry is not feasible to interview every FinTech venture operating in the financial realm. Also, the time and budgetary confinements of this study support this approach. Therefore appropriate judicious samples are selected within the financial industry. The sample comprises different professionals and experts from the FinTech and FIs and few general peoples (laymen) exposed to the facilities of FinTech.

#### **Research Limitations**

The study decided to visualize the research limitations in progression and designed encompassing these arguments seeking to reduce the impact of these limitations. The usually reasonable constraint of a short-term research study is time management. It is due to the limited period allotted in which the research is performed. Further, looking towards the overall overview of the FinTech ventures and FIs, the professionals have extensive workloads due to unavoidable circumstances and busy agendas, so there was limited availability for interviews. Concurrently with the researcher's hectic schedule, this reflects efficient planning of time.

Moreover, acknowledging the lack of monetary resources and COVID-19 situations, the study lacks control while collecting data. Thus, to overcome the data collecting limitations author uses the internet and intranet-mediated modes.

Further, the absence of the previous relevant research was a tremendous limitation for building up the literature review. It happens because the word "FinTech" has evolved so fast so far considered a novel trend and produces ambiguity for numerous individuals.

Last but not least, the authenticity of the knowledge or evidence is an added potential limitation of the research. The solid or accurate acknowledgments from interviews can be defiled due to the corporate policies of the FinTech companies and confidentiality restrictions associated with the FIs. Also, the general public responses may include biasedness due to their demographics preferences. Moreover, the absence of working experience of the researcher proposes a challenge to the justification. However, the researcher attempts to assure faith in all associates' for delivering esteem and respect to the researcher.

# 3. Findings and Discussions

The study utilized the content analysis technique of qualitative data analysis methods. This technique is appropriate with the research questions for analyzing the gathered qualitative data. Generally employs for the documented data in the frame of writings, statements, or even pictorial representations. It further helps to analyze responses from interviewees. The content analysis can perform by framing the collected data into a meaningful form, then data mining, and finally making inferences. This study follows a pattern of initially stating the responses gathered from the interviews, then presented in a contrasting manner, and lastly interpreted by eliminating some elements which were not relevant to the research study. Also, the study coded the responses based on different keywords.

Moreover, the study strives to use the "Triangulation" approach to enhance the essence of the study. It is an approach of employing various techniques or data sources in qualitative research to reveal a broad knowledge of the subject matter. It is perceived as a qualitative analysis tactic to examine soundness and efficacy by the assembly of knowledge. Hence, this research utilized two different sources of data collection. In primary source, it targets respondents in three distinct areas whereas, in the secondary source, the literature review of the study. Thus, at last, the study links the literature review with the statements of the interview questions for validating the soundness of the research study.

#### Sample Exposition

This study has employed Judgmental sampling to choose the respondents. The purpose is to collect the primary data by convoying interviews from different viewpoints with individuals from the financial sector. The sample out of a diverse population comprises three different sub-sets of interested parties of the financial industry.

The three different sub-sets of interested parties are as follows:

- Professionals from FinTech Ventures.
- Experts from Financial Institutions.
- End-users of Financial Sector.

The nature of the interview can take a semi-structured (one-to-one) internet-mediated interview. It consists of two different essential documentaries, namely (i) the interview guide and (ii) interview questions.

The Interview Guide is prepared before escorting the interviews. It usually includes open-ended questions from which some questions are general to every set of samples whereas, some questions have a specific design for experts. The creation of an interview guide confirms the dependability, and it can be bestowed to the respondent who necessitated it. The interview guide in this study has been articulated in line with the background of the respondent.

#### The articulated interview guide is as follows:

# Table 1: INTERVIEW GUIDE

INTERVIEW GUIDE				
How the elements of FinTech influencing the IFS?				
What do you think about the latest trends in the FinTech realm?				
What are your opinions concerning new regulations in FinTech?				
What are the advantages of FinTech during Pandemic COVID-19?				
What do you think about the adoption rate of FinTech before and after Pandemic COVID-19?				
What are the potential shortcomings of collaboration?				
How do the emerging tech trends influence your institution?				
What are your thoughts regarding collaboration with a FinTech venture?				
What are your opinions regarding financial institutions' competition with FinTechs?				
How higher inclination of customers towards FinTech influence your BM and customer base?				
What is the purpose of using FinTech applications?				
How much your financial life is dependent on FinTech?				
How FinTech applications help you during Pandemic COVID-19?				
What is your opinion regarding safety in the usage of FinTech applications?				
What is your opinion are the merits and demerits of using FinTech services?				
SOURCE: Created by Authors				

Furthermore, the researcher has formulated interview questions based on the interview guide that is two different segments according to the research questions.

The two different segments are as follows:

- <u>Generic Questions</u>: It includes how one can define FinTech and their ideas behind the subject matter, the potential reasons for the change in the financial industry as per their knowledge, etc.
- <u>Advanced Questions</u>: It includes at what rate people are inclined toward digital platforms, the impact of FinTech on the financial institutions, the reasoning behind adoption of FinTech during Pandemic COVID-19, etc.

The interview questions are as follows:

### Table 2: GENERIC QUESTIONS

GENERIC QUESTIONS			
What is actual sense of term "FinTech"?			
What are your opinions about emerging trends of FinTech?			
What are the potential elements that changes the Indian Financial Industry?			
How FinTech's application modify the traditional financial institution operations?			
SOURCE:Created by Authors			

#### Table 3: ADVANCED QUESTIONS

ADVANCED QUESTIONS		
What is the influence of FinTech on the traditional financial institutions?		
What is the consumer penetration on FinTech platforms before and after COVID-19?		
What are your opinion concerning the use of FinTech in lockdown during Pandemic COVID-19?		
How the data security breaches influence the customer adoption towards FinTech even in COVID-19?		
SOURCE: Created by Authors		

After defining the criteria for choosing the participants and formulating the interview guide and interview questions, the researcher initiated contacting the FinTechs and Financial Institutions via different available modes of contact. It is a very beneficial activity for choosing the participants. The researcher has meticulously studied the profiles and qualifications of potential respondents as per their intelligence and work experience. Also, importance is given to the people working in the domain of emerging technologies of finance.

The researcher sent e-mails to the numerous potential participants who were deliberately selected. Out of the sent mails, only a few have responded, from which only ten potential participants proposed to perform the interview over a phone call and virtual video conferencing. However, only seven responses were successful because the researcher found that the information recorded in the last interview was identical with the previous one (the element of repetitiveness) has now occurred. Thus, the interview has reached its saturation point, and the gathered data from seven respondents was enough to suffice the purpose of our research questions.

Moreover, the researcher didn't use any tool or program for the transcription due to research limitations. Also, few respondents refuse to reveal their identity due to confidentiality and corporation policy purposes. Thus, the authors maintain the ethical considerations and produce an anonymous list of all the respondents by coding names under unique codes.

The anonymous interview respondent list of the three different sub-sets of interested parties are as follows:

Name	Designation of Respondent	Expertise	Medium of Interview	Means of Communication	Duration	Date
2	5. 1	Professional	s from FinTecl	n Ventures		
FT 01	Digital Analyst	Technology	English	Skype Call	00:15:40	10.03.2021
FT 02	Tech Developer	Digital Systems	English	Phone Call	00:23:56	12.03.2021
FT 03	Team Manager	Capital Markets	English	Skype Call	00:18:23	10.03.2021
		Experts fro	m Financial In	stitutions		
FI 01	Branch Manager	Banking	English	Virtual Meet	00:19:09	22.03.2021
FI 02	Business Analyst	Operations	English	Skype Call	00:16:02	22.03.2021
	20	End-user	s of Financial	Sector	·	***
EU 01	Researcher	Fianance	English	Phone Call	00:27:21	09.03.2021
EU 02	Professor	Investments	English	Phone Call	00:35:33	06.04.2021

Table 4: INTERVIEW RESPONDENT LIST

SOURCE: Created by Authors

#### Data Analysis & Interpretation

This section will depict the data gathered from different responses during the interview phase. The replies organize according to the sub-sets of the sample. It attempts to present answers in line with the research questions.

#### The valuable responses from the respondents are as follows:

• <u>Response from FT 01</u>: The questions asked from a "Digital Analyst" with expertise in "Technology" are as follows, and the replies are written in a confined way relevant to the study.

#### 1. What is actual sense of term "FinTech"?

The respondent defines the term FinTech as it is not a novel approach, and these are corporations that have a high degree of digitalization, which initiated to enter the financial realm during the last decades and could transform the financial landscape by assisting insightful financial assistance. Further, they think out of the box since they have a completely different way of thinking than the traditional banks.

#### 2. How the elements of FinTech influencing the IFS?

The respondent asserts that the lending and payment service of IFS is negatively influenced by the FinTech ventures since FinTechs tries to attract clients by giving lower interest rates than the traditional financial institutions. However, these ventures didn't know how to aid the clients in case of any financial difficulty and also didn't know how to extend their mortgages repayment timeframe in case of Pandemic like COVID-19.

#### 3. What are the potential elements that changes the Indian Financial Industry?

The evolution of FinTech is a prime factor for the changing landscape of IFS. The development is taking place since the emergence of ATMs, but the financial crisis of 2008 leads its way forward and puts the foot on the stepping stone towards the digitalization of the process that ensures the stability of the financial system in the highly rapid changing environment. The digitization of operations leads to higher transparency and appropriateness.

• <u>Response from FT 02</u>: The questions asked from a "Tech Developer" with expertise in "Digital Systems" are as follows, and the responses are written in a confined way relevant to the study.

#### 1. What is actual sense of term "FinTech"?

The Interviewee defines FinTech ventures as young corporations that leveraging novel innovative tech trends within the financial sector. These have vital abilities to analyze data, use ML and AI. The systems for providing or distributing financial services are often essential in their offerings. Also, the respondent tells that new player are corporations that operate with technical specifications and operations management to give financial services such as payment and lending or sale of novel ideas for the traditional financial institutions.

#### 2. How the elements of FinTech influencing the IFS?

The injection of novel systems in the IFS are the essential elements that influence the IFS. FinTech corporations generally focus on domains where the FIs are not expanding their operations. While the core areas of the FIs are hard to pitch and penetrate. The trend over time is that FinTech corporations are entering into the FIs core segments of offerings. Moreover, some FinTech corporations try to dominance the financial services, but their influence on IFS is not visible yet.

#### 3. What do you think about latest trends in FinTech realm?

The latest trends are the changing business models, injections of novel systems, emerging tech trends such as AI, Blockchain, Cloud Computing, Data Science, etc. These are the emerging concepts that are happening in the FinTech realm. These are also the potential factors for influencing the FIs foundation. Out of this, some are already in maturing stage, and some are still trying to document their existence, but in the crux, these are the future of finance.

• <u>Response from FT 03</u>: The questions asked from a "Team Manager" with expertise in "Capital Markets" are as follows, and the responses are written in a confined way relevant to the study.

#### 1. How FinTech's application modify the traditional financial institution operations?

The FinTech corporations did not immediately influence any segment of traditional financial institutions. Because conventional financial institutions are aware of the evolution of FinTech corporations happening since 2008. For instance, these FinTechs are placing a higher bar of standards and pressuring the traditional financial institutions to do and evolve in a better version.

#### 2. What are the advantages of FinTech during Pandemic COVID-19?

The advantages of FinTech are slightly higher than traditional financial institutions during the situations like Pandemic COVID-19. They act as a market creator when the capital market reflects the sluggish element of the transaction. In COVID-19, the trait of being cashless is an essential part of helping individuals while maintaining economic and financial stability.

#### 3. What do you think about adoption rate of FinTech before and after Pandemic COVID-19?

The adoption rate of FinTech applications is much higher than before. Individuals are shifting from banking systems to mobile systems. Relatively, the customer base before COVID-19 was less on most of the digital platforms. In concluding thoughts, I can say that any economic circumstances such as COVID-19 have a positive relationship with the adoption of tech trends.

• **<u>Response from FI 01</u>**: The questions asked from a "Branch Manager" with expertise in "Banking" are as follows, and the responses are written in a confined way relevant to the study.

#### 1. How do the emerging tech trends influence your institution?

The emerging tech trends are developing at a very high pace, and meeting up with those in an enormous conventional setting is an indifferent and resource-consuming task. However, there are facilities in the FI that utilizes a similar concept, but these are up to an extent. Further, the BM of FinTech is entirely different from the financial institutions, and it has a threat to the institution.

#### 2. What are your thoughts regarding collaboration with a FinTech venture?

The idea behind the collaboration is not a simple process. For this, the strategic managers have to define a working map for follow-up. These considered different factors, such as the pros and cons of the alliances. However, the idea is not a bad one because to gear up the entire financial industry we need such associations.

#### 3. How higher inclination of customers towards FinTech influence your BM and customer base?

The current scenario of Pandemic COVID-19 has disrupted the entire gamble of the financial sector. The lockdown and SOP's from the government have needed the customers to switch to digital platforms and systems. Also, most of the operations have turned out to a digital manner. However, the customer base didn't get much affected because even the FinTechs have the support of the financial institutions. But in terms of BM, it is a matter of concern to look into the potential changes.

- <u>Response from FI 02</u>: The questions asked from a "Business Analyst" with expertise in "Operations" are as follows, and the responses are written in a confined way relevant to the study.
  - 1. What are your opinions regarding financial institutions competition with FinTechs?

The competition is generally high from these Fintech ventures because they are focusing on providing services at a cheaper cost and according to the demographics needs of the customers. But, somehow, these lacks in presenting client's data security which is a competitive advantage for the financial institutions over the FinTech ventures.

# 2. How the data security breaches influence the customer adoption towards FinTech even in COVID-19?

Data security breaches are one of the major concerns among consumers. In the purview of this, numerous consumers didn't shift entirely towards FinTech. However, they utilize the personalized services of our esteemed institutions and also maintain the proper COVID-19 guidelines.

#### 3. What in your opinion are the merits and demerits of using FinTech services?

The merits and demerits of using any platform or technology is very relative to the user. For some it may be advantageous in terms of speed, hassle-free, and convenient. Whereas for some it may be disadvantageous in terms of security, privacy, user interface, etc.

• <u>Response from EU 01</u>: The questions asked from a "Researcher" with expertise in "Finance" are as follows, and the responses are written in a confined way relevant to the study.

#### 1. What is the purpose of using FinTech applications?

The sole motivation for using FinTech in one's personal life is his/her demographics preferences. The youth and millennium generation has more preferences to it. These can be in the usage of payments of utility bills, lending to a friend, future financial planning, investment purposes, etc.

#### 2. How FinTech applications help you during Pandemic COVID-19?

FinTech utilization in the lockdown period assists in managing the routine life commercial activities. It helps access the payment and lending services while keeping in mind the limitations due to Pandemic COVID-19.

#### 3. What in your opinion are the advantages and disadvantages of using FinTech services?

The advantage of utilizing the FinTech assistance is ~ it meets up the demographics' requirements on the finger-tips. These can provide an entire portfolio of services through a digital platform over the web. Also, tech trends help to assist. However, there are disadvantages which creates chaos and threat for using FinTech.

• <u>Response from EU 02</u>: The questions asked from a "Professor" with expertise in "Investments" are as follows, and the responses are written in a confined way relevant to the study.

#### 1. What are your opinion concerning the use of FinTech in lockdown during Pandemic COVID-19?

Generally, the utilization of FinTech is at its peak in the financial industry. The use of FinTech applications during Pandemic COVID-19 provides an edge for better financial services. It allows the user to be inclined more towards technology and managing finances at their fingertips. It becomes the morning tea for numerous persons working in the financial industry.

#### 2. What are your opinions about emerging trends of FinTech?

The tech trends are the night-loving technologies running in the sphere of the financial realm. Technological tools such as chatbots, Robo-advisors, financial planners system, etc., are helpful in the smooth functioning of the financial industry. Consumers are also largely inclined towards these platforms for the hassle-free management of finances.

#### 3. What is the consumer penetration on FinTech platforms before and after COVID-19?

In recent times, the use of the internet has also increased the emergence and utilization of digital platforms. However, before the Pandemic COVID-19 period has less steer of consumers towards the exposure of digitalized world. But after the Pandemic COVID-19 period has a more steer of clients towards the expression of digitalized.

The successful completion of the interview from seven respondents presents an immense amount of data from diverse view angles ~ including FinTechs, Financial Institutions, and End-users. These are further confined and illustrated in the findings and the results.

#### Findings & Results

This section comprises the key points or keywords from the collected data. The collected responses will lead towards empirical findings that help to make valuable results for the study. The blend of both types of data shows valid, sound, and confident outcomes. The answers to the research questions of this study will be delivered based on the empirical findings, and the results are made for further conclusions.

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The findings from the responses and the literature proposed numerous common critical points. These reflect the confidence while addressing the same with the research questions.

<u>Research Question 1</u> - "What are the triggers of FinTech that have altered the landscape of the Indian financial system?"

Based on the available literature and inferences from the interviews, the common findings are – "Sub-prime Mortgage Crisis of 2008", "Loss of Trust", "Rapid Development of Technologies", "Diversified Portfolio of Big Giants", "Flexible Business Model", "Variations in Demographics", "Collaboration and Alliances", "Limited R&D", "Pandemic COVID-19", etc.

- Most of the respondents acknowledge that the Sub-prime Mortgage Crises of 2008 has an original contribution to the rise and shine of the FinTechs ventures in India. Also, the works of literature on the subject matter indicated a positive sign in this regard. Thus, we can say that crises are no irregularities in the financial industry but are the actualities of the system. These are the loopholes in the prevailing system and taken up by FinTechs to capture a large chunk of customers from the market. The financial crisis happens every 5 to 10 years around the globe which becomes the critical component of the financial system in which we live and operate.
- Moreover, few findings suggest that the present condition of the Indian financial system requires growth concerning the business system, methods, regulations, technologies, and primarily the BM of the traditional financial institutions. These are the essential triggers from the FinTech space that has modified the landscape of the Indian financial system. The literature also suggests that the legitimate lawmakers were working to propose novel regulations, with changing ecosystems and especially after the crisis of 2008. These regulations came into the picture to ensure consumer trust, fairness among participants, economic and financial stability, etc. It has created opportunities for FinTech ventures to pitch their idea on the walls of finance to modify the landscape of the Indian financial system. It happened because the traditional financial institutions had faced the issue of loss of customer trust. Afterward, the variations in the relationship of the conventional financial institutions and end consumers showed over time.
- Consequently, customers have shifted their inclination towards innovative ventures for the fulfillment of their financial needs. The clients initially started using digital financial services through the usage of mobile devices, which potentially promotes the open room for novel innovations within the sphere. Also, an expert (Respondent) from a financial institution tries to convey that client trust more big giants such as Google Pay and Amazon Pay than the incumbent and financial institutions. Studies also mention that these big giants are integral elements of human lives. FinTechs and Tech giants are attracting the most luminous intelligence and bridge the financial industry gaps.
- The rapid development of technology after the 2008 crisis allows FinTech entrants to lead the financial industry because FinTechs are offering identical assistance with the equivalent degree of excellence, an equal degree of reliance, assurance, and security, etc. It necessitates clients to steer towards FinTech instead of financial institutions. In this, the FIs have loosened up a lot of market share. Contrary, FinTechs engage various systems and backing technologies such as AI, Blockchain, etc., to operate algorithms.

- The technologies are developing the capital markets and bringing drifts in the base of the financial industry. Internet penetration has supported the emergence of mobile technologies and digital solutions. The big corporate giants started tracking the history of customer searches to know about personal interests. It assists in pitching the appropriate customized financial products to every customer. It is a core advantage they have over traditional financial institutions.
- Another loophole of the Indian Financial System stated by one of the respondents was that most traditional financial institutions had procured mainframe software and hardware from external sources. These were not much flexible with the new changes and, the symmetry of in-home technology advancement is constrained due to uncertainty in utilizing the fixed cost. However, FinTechs has created opportunities out of these loopholes because the traditional financial institutions aren't apt to transform themselves with rigid systems. Also, the tech providers didn't share the solutions and software code with the institutions. This phase of the digital revolution ends with the distribution of financial products directly to end-users.
- Further, the demographics changes is another critical keyword stated by numerous respondents and work of literature. These are the triggering events for FinTechs to disrupt traditional financial institutions. The youth or the Millennial generally steer their preferences towards FinTech ventures and big tech giants instead of incumbent and conventional financial institutions. The tendency of a new generation has a trait of lazy behavior that resist them to visit the branches and deal with individuals for performing financial transactions. The respondents also reflect that the new generation believes in the sharing concept instead of obtaining different things. This trait represents a crystal-clear notion to the banks for deliberately changing the BM to attract this segment of the population.

<u>Research Question 2</u> - "What is the role of pandemic COVID-19 on the adaptiveness of FinTech in India?"

Based on the available literature and inferences from the interviews, the common findings are – "Positive Association", "Ease in Accessibility", "Hassle-free Transactions", "Convenient", "Appropriate", "Reliable", "Fast", "Easy Regulations", "Developing Trends", "Government Initiatives", etc.

- Moreover, in the purview of Pandemic COVID-19, the FinTech ventures again prove themselves that they are still the leading parties of the entire financial world. Numerous works of literature and opinions of respondents exhibits that FinTech ventures have capabilities to work in a flexible environment. These are profitable ventures even in times of global outbreak, but in contrast, it becomes a threat to the traditional financial institutions. The customers are inclined more towards the FinTech facilities and setting to operate their financials and future finance-related planning. The users of FinTech have increased rapidly to access routine and utility transactions.
- FinTech represents the theory of "Digital Darwinism" of changing and coping with modern needs and requirements. It has evolved the way an individual thinks and even beyond the thinking of an individual. Numerous works of literature and respondents state that FinTech adaptability before Pandemic COVID-19 was less penetrative but, after and during the Pandemic COVID-19, the penetration is at its peak. Individuals are more habitual and familiar with these hassle-free systems.

Also, the government stipulations regarding Pandemic COVID-19 limit the traveling of people and leads towards the usage of the FinTech application.

• FinTech is more approaching and adaptive in Pandemic COVID-19 because it has a different way of reaching and pitching to the customers, has a diversified investment portfolio of investing in tech trends instead of building branches. Also, they employed humanitarian expertise with enhanced skills, provide chatbots for online assistance, and deployed the robot-advisors for making financial planning. Thus, it has a high adoption rate during Pandemic COVID-19.

Hence, the results and findings presented are efficiently able to answer both the research question. Based on this, the conclusion is in the next chapter.

# 4. Conclusion

This study presents propitious knowledge to learn FinTech extent from an economic crisis perspective. The findings and results can be worthy and relevant in different domains and theories. Financial technology is not a new one among academicians, but "FinTech" is still an exciting and relatively new term. The prime factor to the study is to proceed from two ways of primary and secondary data to answer efficiently.

The study reveals that central factor for FinTech expansion and its adaptiveness correlation with the economy. These verdicts prove that FinTech's idea will pertain to be the leader even in the second wave of Pandemic COVID-19. The results also reveal the basis on which traditional financial institutions need to work. The theory of Digital Darwinism is also applicable to the concept of FinTech emergence.

However, both the addressed parties having their disadvantages and advantages. In some parts, financial institutions have core competencies over FinTech and vice versa. Further, the notion idea of being collaborative versus competitive utilizes the Coopetition Theory, where maintaining a collaborative approach of operations are beneficial for both FinTech ventures and Financial Institutions.

Pre & Post Pandemic COVID-19 global outbreak crisis has influenced the FinTech ventures adaptiveness and its adoption rate. Also, the government initiatives have an intense effect on FinTech's evolution and adaptability. However, the weak regulatory structure of India can potentially hamper the progress of FinTech ventures. Lastly, the political and compliance vagueness and overvaluations of FinTech ventures during the crisis time frame can hinder the improvements happenings within the financial realm.

This study has presented a sound and valid results. Initially, it reviews the previous studies concerning the subject matter. These are further supported by the well-known consulting and processing industries of the domain. Secondly, it gathered valuable opinions from seven interviewees from different angles. The other potential players of the financial sector perceive FinTech ventures as a negative influencer. But, the concluding thoughts of the respondents had a positive connotation concerning FinTech ventures because they also have a picture of altered financial institutions. They reflect those financial institutions must apply the "Digital Darwinism" theory of change. However, there were some contradicting views concerning threats of the technology, and the collaboration with rivals is not a good thought of proceeding. However, the highly skilled and expertise enriched professionals are there in the picture to change with FinTechs during and after Pandemic by continuously mitigating the negative connotations.

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