

Significant insights and thoughts on Fintech and future of banking in Indian context – A theoretical assimilation

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Abstract:

FinTech, or new financial technologies, has exploded globally. As a result, over the past five years, academic writing on fintech has significantly increased. Research often lacks a clear research aim and is just loosely connected. There are still significant research gaps and crucial questions. Before this field is considered an established academic discipline, more work needs to be done. This paper presents logical research themes that were developed through focus groups with academics and policymakers and are also based on an evaluation of the literature. Every person is exposed to a fair amount of the various forms of technology and its new trends. The mysterious new term FinTech is one of the driving forces in the Indian financial sector. FinTech initiatives have questioned the very validity of the conventional financial institutional framework, pointing to significant changes in the way financial offerings are administered. Additionally, a number of issues involving coercion have come to light, and questions have started to surface regarding the impact of FinTech on the Indian Financial System. The earlier pieces of evidence imply that the effect of FinTech on the Indian financial sector was not taken into account by research. This study offers information on FinTech in India and its impact on the country's financial sector. Additionally, the goal is to gain a more comprehensive understanding of how the financial industry is changing as a result of FinTech advancements. Three different sub-sets of empirical data were gathered using the qualitative method. This subset consists of FinTech venture professionals, financial institution professionals, and financial end users. The analysis showed that a variety of reasons are to blame for changing the Indian Financial System's landscape.

Keywords: *Fintech, Indian financial sector, Indian Financial System's landscape, policymakers, qualitative method*

Introduction:

India is one of the world's most populous and fastest-growing nations (Ajzen 1991). Yet, a sizable chunk of rural and tribal territory is blocked off from official financial services, which contributes to the region's slow economic development and pervasive poverty (Oskarsson 2018). As their income is frequently erratic, the poor have a harder time managing their money than anyone else (Chouhan et al. 2021a). To meet a variety of financial demands, they require easy access to savings (Khan 2012), microcredits (Chang et al. 2020), insurance (Okoye et al. 2017), and payment and transfer services (Gautam and Rawat 2017). These prerequisites include the need for a wide range of economically viable and respectable financial services. They nevertheless use informal networks, which are distinguished by lower levels of reliability and security and higher costs than standard services, as a result of their limited access to official financial services (Haque et al. 2020; Metzger et al. 2019). The financial crisis of 2007–2008 gave rise to financial technology, or fintech, which has subsequently changed the financial services industry by bringing new technologies to the market (Chouhan et al. 2021b; Anagnostopoulos 2018). The development of contemporary banking has been supported by two pillars that are based on technology (Li et al. 2021). A significant driver for this cause in India over the past ten years has been the rapid development of mobile networks in previously underserved areas and communities (Chouhan et al. 2021c; Omojolaibi et al. 2019). In addition to online and mobile banking, payment banks have become more prevalent, which has helped to improve operational effectiveness and cut costs for serving clients who live in rural and semi-urban areas (Schuetz and Venkatesh 2020; Chouhan et al. 2020). The development of an inclusive financial sector offers two complementary contributions (Anagnostopoulos 2018; Cecchetti and Schoenholtz 2020). First, those who are shut out of the market may still be

involved in economic growth through financial inclusion. Second, as a result of economic growth, new people are drawn into the economy and financial system (Schuetz and Venkatesh 2020; Mader 2018). By supporting growth factors like expanding access to opportunities for savings mobilization and entrepreneurship, reducing people's susceptibility to risk, and raising their standard of living, inclusive financial advances can help reduce poverty (Kim et al. 2018; Khan et al. 2014). New types of banks, including small banks, mobile money services, and payment banks that cater to people without bank accounts, have emerged as a result of the mission to increase access to financial services (Banna et al. 2021). New non-bank fintech companies that compete for a larger share of the banking value chain have also boosted financial inclusion (Maina et al. 2020; Burns 2018). This is an indicator of how far the sector has advanced. The use of fintech services for financial inclusion was examined in this study in relation to behavioral intention, trust in the service, usability, and social influence of people (Nguyen 2022; Chouhan et al. 2021d). While the government's pro-startup policies and the Reserve Bank of India's (RBI) lenient regulatory requirements have helped digital finance companies, traditional institutions have a history and established infrastructure that cannot be easily replaced (Davis and Fred 1989). Customers in India need to have more faith in fintech companies because they are already known for being cautious with their financial decisions (Bagozzi and Yi 1988). Finding ways to address their needs and affect financial behavior, as well as establishing a strong and flexible regulatory architecture to keep up with the pace of technological innovation, are some of the major issues (Dang and Nguyen 2021; Chouhan et al. 2021e). Conventional banking and financial institutions, on the other hand, can leverage their current clientele and put into place digital solutions that promote strong business connections while boosting service efficacy and broadening access to meet changing demand. The urgently needed modernization of the traditional industry may be sparked by the disruptive potential of fintech companies, resulting in lower costs and an increase in bankers. Startup Village and Federal Bank have collaborated to develop cutting-edge financial solutions in response to these changes and challenges. Barclays, the biggest bank in the UK, is getting ready to open its sixth global fintech innovation center in India, and Goldman Sachs Principal Strategic Investments Group (GSPSI) is considering investing in Bengaluru's fintech startup ecosystem. Therefore, traditional institutions and Indian fintech startups may not necessarily have a mutually exclusive relationship given the expanding prospects for technological innovation (Dang and Nguyen 2021). The RBI and other government programs have made promoting financial inclusion a priority.

This has meant encouraging competition and innovation in India's developing fintech sector on more or less level playing fields. As a result, both online and offline solutions have been developed, resulting in the development of a more open and secure financial system. The RBI has recently formed a multidisciplinary committee to look into the fintech market in India. Understanding the risks involved and the creation of new models is the goal in order to assess how the financial system might adjust and deal with them. The RBI has so far promoted peer-to-peer lending, digital payments, the Bharat Bill Payments System, the Unified Payments Interface, and the use of computer algorithms to offer financial advice. The RBI has also granted permission to 11 fintech firms to establish payment banks that offer savings, deposit, and remittance services. Clients typically have a lower propensity to accept new technology since they have confidence and trust in the current banking system. Modern technology won't be useful until people are at ease with privacy and security issues. Gaining the trust of customers will take time, despite the fact that it is easier and less expensive than the traditional methods. The general public can now more easily access financial services like AePS, Aadhar Pay, remittances, and recharges thanks to fintech businesses. This has increased the accessibility of online banking and democratized electronic payments. Therefore, this idea gave the study's authors the idea that fintech might be a game-changer in the effort to fully integrate rural people into the financial system and motivated us to research its many facets. By lowering costs and improving access to financial services for people in low-income groups, rural areas, and other underserved sectors of the Indian economy, fintech companies can help foster competition and hasten financial inclusion in that country. By offering new business models, applications, and breakthroughs, this is accomplished. It's critical to understand the various perspectives of fintech in order to comprehend its contribution to financial inclusion. The primary goal of this study is to investigate these factors.

Financial services are being transformed by digital innovation. Around the world, innovations in financial technology have evolved, including mobile money, peer-to-peer (P2P) or marketplace financing, robo-advice, insurance technology (insurtech), and crypto-assets. Fintech has already improved retail users' access to and convenience with financial services during the past ten years. Nevertheless, technologies like distributed ledger technology (DLT), cloud services, and artificial intelligence (AI) are revolutionizing wholesale markets in industries as broad as financial market trading and regulatory and supervisory technology (regtech and supotech). Numerous new businesses have emerged to use new technologies to satisfy customer demand, and the majority of established

businesses say that digital transformation is a strategic priority (Feyen et al 2021). In fact, to compete with fintechs and the large technology (big tech) firms that have also entered the fray, leading banks are quickly closing gaps in the digitization of internal processes and customer offerings (BIS 2019; Frost et al 2019). Markets could become more diverse, competitive, effective, and inclusive as a result of these advances, but concentration levels could also rise. In particular in emerging markets and developing economies, innovation has boosted inclusiveness while introducing competition (Pazarbasioglu et al 2020; Frost et al 2021). Particularly in markets where the financial system was less developed, fintech appears to have prospered (FSB 2020; Didier et al 2021). However, the fundamental economics of intermediation in combination with new technology may result in concentration among both established and emerging financial service providers. Big digital platforms' monopolistic or anticompetitive behavior is already under investigation. Regulators are debating how to supervise and regulate a market that is increasingly characterized by new players and business models, as well as how to address potential threats to financial stability, financial integrity, fair competition, and consumer protection as financial services move toward similar technology-driven configurations (including data privacy).

Economic frictions and forces in financial services:

Transaction costs are fundamentally responsible for the existence of financial firms, just like all other firms. Market interactions on the production side and the customer side are characterized by hazards when there isn't total trust between the parties, for example because of principal-agent problems and incomplete or asymmetric information. Costs associated with contracting, searching, and verification must be borne by both institutions and consumers in order to solve these in order to lower risk and build trust. For instance, lending is characterized by information asymmetries both *ex ante* and *ex post* since lenders must assess the risk profile of potential borrowers and keep track of the borrowers' ability to make payments (Dewatripoint and Tirole 1994). The requirement to monitor payment obligations and confirm the legitimacy of payment tokens or account holders is a fundamental aspect of payment markets (Kahn and Roberds 2009). Customers need reliable mechanisms for receiving their payments as well as trustworthy counterparties with whom they can deposit funds. Each actor in the payment processing chain must have confidence that the other parts won't expose them to fraud or liability. Investment and insurance in the financial markets are vulnerable to unpredictability of future outcomes, unfair selection, and moral hazard. The ability to provide customers with high-quality products depends on reliable underwriting and execution services. Customers themselves must have confidence in the safety of the financial commitments and business practices that support their ability to buy and sell. Internalization of activities within a single financial services firm, like in other industries, overcomes principal-agent and asymmetric information challenges, allowing for interest alignment and action monitoring. This guarantees trustworthy team interactions. The management of assets and liabilities can be closely coordinated when deposit taking and lending are combined. When payments execution and account management are combined, the provider can verify that funds are available before executing transfer instructions. Companies can create new investment products that are in line with investor preferences and market conditions by connecting underwriting, trading, and sales. Companies that provide financial services are set up to address certain intermediation-related information gaps and frictions. Banks were created to meet the maturity transformation difficulty brought on by insufficient knowledge of depositors' future liquidity demands. They also address the costs of transactions and the requirements for risk management when facilitating investments between parties who are unaware of one another directly or of external economic activity. In order to better handle result uncertainty, banks diversify over a wide number of borrowers. By requiring listings and publishing prices, exchanges and brokers reduce information asymmetries. They also provide the infrastructure and services necessary to match and facilitate transactions between buyers and sellers who do not already know one another. Customers need trustworthy providers more than in other businesses because so much of the intermediation process is not immediately visible to clients, and hazards cannot become apparent for a long time. A provider might use the trust they have built with one product to promote additional services. These services need tangible resources in addition to information and financial resources. They comprise the labor, tools, and space needed to create financial agreements, oversee accounts, and handle client transactions. Depending on the sort of business, the mix of labor, physical capital, financial capital, and trust capital will vary. Nonetheless, the same production frictions that affect production in other industries, such as real resource indivisibility and fixed costs, also affect the production of financial services, albeit to differing degrees. As a result, even while financial intermediation faces specific information and transaction frictions, the industry as a whole is nonetheless subject to the same general economic pressures that affect other sectors.

Review of Literature:

The main driver behind the adoption of the concept of microfinance in poor nations was the encouragement of desperately needed financial sector growth (Duncombe and Boateng 2009; Wry and Zhao 2018; Iqbal et al. 2019; Chavan and Birajdar 2009). Economic growth and development and financial inclusion have a close relationship (Mia et al. 2018). According to Jack and Suri (Jack and Suri 2014), advancements in financial technology may offer solutions that are both more affordable and more effective by reducing transactional costs (Black and Babin 2019). By lowering the costs related to alternative payment alternatives, this also assists micro and small businesses in growing their sales (Frost et al. 2019). An empirical investigation of mobile money by Aron (2018) revealed evidence of the significance of mobile money in promoting risk-sharing. Some notable research, such those by Mbiti and Weil (2013) and Wieser et al. (2019), show that more use of fintech results in a decline in the use of informal savings methods and an increase in the volume of remittance transactions. These results back up Jack and Suri's conclusions (2014). The impacts of the digitalization of social support programs for the less fortunate have been examined in several studies in this topic (Ghosh 2020; Masino and Nino-Zarazua 2018). It is crucial to identify all the potential issues and challenges for each of the various stakeholders (Kim et al. 2018). The bulk of Indian financial institutions are keeping an eye on the sector and trying to learn from others' experiences (Rathod and Arelli 2013). Although new participants look into prospective alternatives and alliances, Indian MFIs are about to relaunch by embracing mobile money and fast change. In India's poorest regions, there is a serious shortage of access to financial services due to a number of institutional flaws and other problems. People are not utilizing their own economic opportunities to their fullest extent, which prevents the economy from growing to its full potential (Singh et al. 2013). As a direct result, microfinance programs have been established in industrialized countries like India to help those residing in underprivileged areas like inner-city neighborhoods (Singh and Singh 2012). Since then, the majority of the poor's needs for financial services have not been addressed (Singh and Singh 2012), which has led to an increase in the process of financial inclusion in India's undeveloped region (Singh and Singh 2012). The table that follows gives an overview of the primary concepts, components, and variables used to research significant factors influencing financial inclusion. Financial institutions or fintech businesses should develop more user-friendly fintech goods and services if they want even older people to use fintech. Governments in underdeveloped countries should emphasize customer protection as well, as people in those countries are regarded to be less financially savvy (Nguyen 2022). This study investigated whether growing fintech-based financial inclusion (FFI) increases risk-taking by banks by examining data from 534 institutions from 24 OIC countries. The results demonstrate that FFI has significant control over banks' risk-taking behavior. The nexus has grown increasingly potent throughout the Post-Industrial Revolution 4.0 era (Banna et al. 2021). The study emphasizes how important it is to understand blockchain technology in terms of an ecosystem because its potential depends on network adoption and growth for the benefit of the entire community. With a greater understanding of the commercial potential of technology and its repercussions, we may be able to open up new business opportunities. It also serves as a guide for upcoming research because it allows us to understand each component of the ecosystem. At various levels of the ecosystem, end users, people, private companies, and governments play a significant role by articulating their requirements for fixing a specific issue, generating a market, and participating in the development of technology through blockchain alliances (Dang and Nguyen 2021).

Basic economic forces are at play across both the financial and real resources deployed by financial firms. These include:

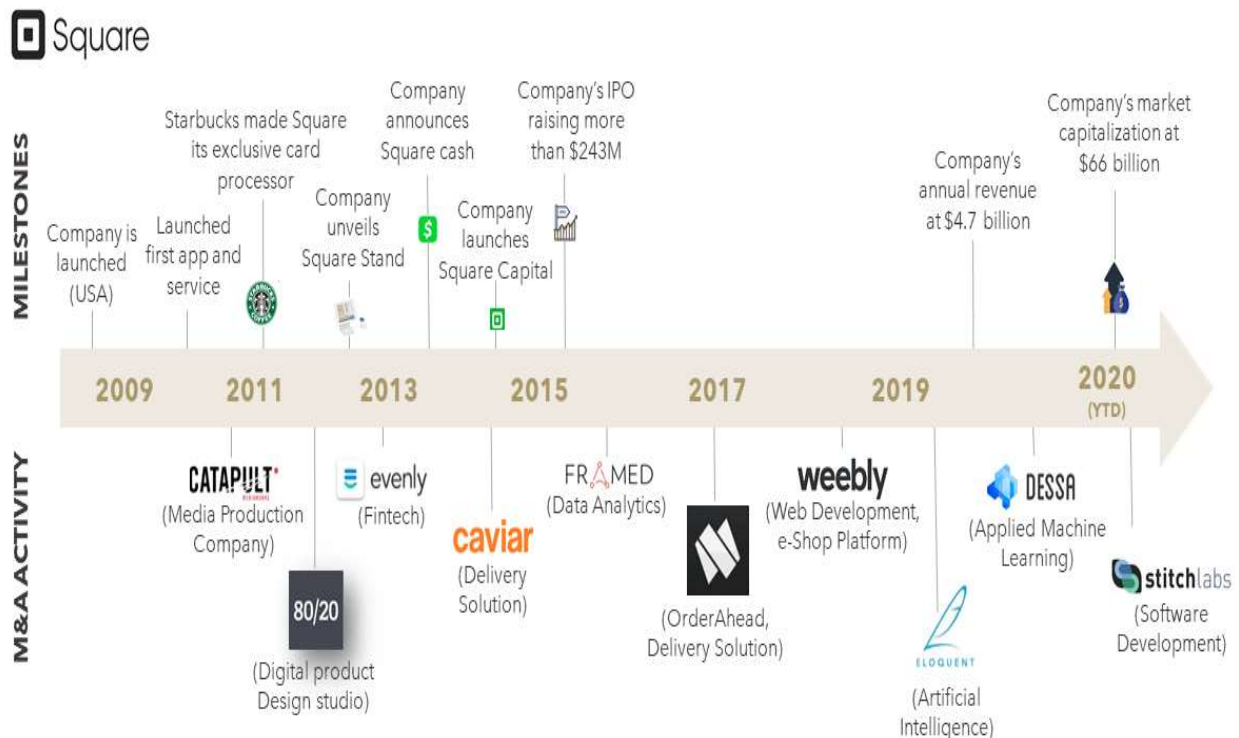
Economies of scale: Traditional financial institutions have had significant fixed cost investment requirements for the development and upkeep of back-office systems and actual distribution networks to connect to the consumer. Additional fixed costs for operations related to regulatory compliance and minimum capital requirements are possible. When a larger producer can spread out those costs over a larger customer base, economies of scale, as in any industry with fixed costs, start to take place. Scale also enables the creation of a diversified balance sheet to more effectively manage credit risk and liquidity. Scale can enable better pricing and/or the capacity to serve a wider range of customers while lowering the marginal cost of taking risks (Mester, 2010).

Economies of scope: Financial intermediaries benefit from economies of scale on the supply side as well by combining interdependent financial services that can be provided through the same actual customer interfaces and use the same balance sheet. Offering both asset and liability products, as well as cross-selling insurance and loan products, can result in cost savings. Demand, where many customers favor a conveniently offered range of products, further enforces economies of scope. Additionally, it emphasizes the institution's function as the customer's gatekeeper.

Network effects: In financial services like payments, where the value of the network increases for all users (payers and payees), network effects, or "externalities," are significant from a demand perspective. A bank that serves a company's customers, suppliers, and other parties could connect counter parties more quickly for payment transfers and working capital.

Financial Stability and FinTech:

Financial stability and durability in a financial system demonstrate its capacity to hasten the enforcement of an economic system rather than hinder it. The stable system makes an effort to maintain financial equilibrium by minimizing the negative effects. The security of client data, the soundness of the system, and customer happiness are key factors in the definition of financial stability. A business model that can manage risk and provide control and reporting standards is being developed by fintech. Traditional financial institutions are protected from fraudulent activity by it. Also, it makes an effort to build a safe network for the transfer of different financial products offered by financial institutions. By assisting in the provision of stability criteria and methods that can easily counter the variations in the financial sector, FinTech is acting as an enabler of financial stability. This quality contributes to the display of the soaring soundness and customer satisfaction systems. There are claims, nonetheless, that over time, the development of FinTech affects financial stability. The greater the reach of FinTech initiatives, the greater the impact on financial stability. Thus, the supervision of the BM of FinTech requires strict monitoring. The Financial Services Board (FSB) defines FinTech as technologically enabled innovation in financial services that may lead to new business models, applications, processes, or products and have a meaningful impact on financial markets and institutions as well as the delivery of financial services. Financial services are being impacted by fintech advances in a variety of ways. The FSB is keeping an eye on FinTech developments and analyzing their potential effects on financial stability in collaboration with other international organizations. This research builds on surveys of national authorities' supervisory and regulatory approaches to FinTech activity as well as the experience of standard-setters. The Financial Innovation Network of the FSB examines FinTech developments in the context of financial stability. The FSB has issued papers on a variety of topics, including the use of technology by regulated institutions to comply with regulatory requirements, the involvement of large technology companies in the provision of financial services (Big Tech), and the use of technology by supervisors (SupTech) (RegTech).



Above image showing Shopify development timeline

Implications for the industrial organization of the financial sector:

By lowering entry barriers through digital innovation, new and smaller players are now able to compete. Low-cost suppliers can enter the market, subject to local legislation, thanks to the elimination of numerous fixed costs and a decrease in variable and switching costs. Small providers are more likely to be economically sustainable than in the past, however they still need to build a trustworthy reputation. Without having to achieve significant scale and breadth, such new providers may displace specific client categories and revenue bases from incumbent providers or increase access to finance for areas that were previously underserved. Without having to raise a significant amount of money to finance significant upfront investments, entrepreneurs may now swiftly bootstrap their businesses using apps, cloud-based computing, and software platforms. As a new provider does not have to fully sever ties with the incumbent, it can foster trust by adding a service on top of the safety net offered by legacy institutions. APIs and open banking projects have the potential to further accelerate this trend. Established businesses from other industries can now offer financial services as well thanks to improved infrastructure connectivity and a decreased demand for physical branches. These newcomers can connect to the financial transactions infrastructure, use cloud-based infrastructures to lower the cost of cross-market entrance, and implement automated procedures in place of hiring specialized personnel. Many of these new service providers, including certain telecoms and digital platform businesses, already have a client base and consumer trust in their primary markets, which they may be able to transfer to the financial industry (Oliver Wyman 2019). Some companies are able to offer platforms that include financial services together with other goods or core competencies. This is especially important in EMDEs because they have less established financial systems and more restricted access to financial services. Fintechs and big technologies now have more room to increase their financial activity and take on market leaders (FSB 2020).

FinTech Adoption and Trend:

The developing Indian economy, novel innovations as well as evolving technologies have transformed the Indian Financial System. The conventional wisdom about how to run and deliver financial products and services has been altered by fintech. Today's FinTech hype has evolved into a highly adaptable strategy and a competitive ecosystem for the established financial institutions. (Vijai, 2019) claims that "FinTech adoption in India has increased significantly over the last two years" and that "FinTech industry change for the financial services in India and its fastest growing fintech industry in the world." 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. The adoption of fintech has increased in India from (52%) in 2017 to (87%) in 2019, according to EY's FinTech Adoption Index 2019, and it has risen to the second-highest rank among 27 markets worldwide. 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. Hence, India becomes the worldwide FinTech adoption leader by operating above growing economies like Russia, South Africa, Colombia, UK, etc. Additionally, according to global statistics, the average actual adoption rate for fintech rose from 33% in 2017 to 64% in 2019. In India, there is a high level of awareness regarding the use of fintech services. 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.

Conclusion:

This study gives propitious knowledge to learn FinTech extent from an economic crisis perspective. The findings and results can be worthy and applicable in numerous 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 identifies the key driver of FinTech growth and the relationship between its adaptability and the economy. This study has produced a sound and accurate results. Initially, it reviews the prior studies about the subject issue. 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 differing opinions on the potential dangers of the technology, and working with competitors is not a wise course of action. 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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