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Evolution, Acceptance, and Adaptation of Fintech: A Systematic Review

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Abstract: The buzz around Fintech has gained substantial attention from traditional banks, regulators, and policymakers. Banks and regulators are hard-pressed to transform their traditional operating models to create a current Fintech ecosystem conducive enough for the users. In this paper, we reviewed the literature on the progression of Fintech with respect to the regulations and policies surrounding it as well as the importance of Fintech in achieving Financial Inclusion. We reviewed the Fintech ecosystem and segregated it into three segments, from 2010-2015, 2016-2020, and 2021 to present. We have discussed the existing literature from the mentioned timeline and concluded that despite being surrounded by numerous challenges, the acceptance of Fintech has boomed over the period of time and created some new avenues for future research.

***Index Terms*- Fintech, Financial Inclusion, Digital Technology, Banking, Regulations**

I. INTRODUCTION

Fintech is a portmanteau for "financial technology." It is a catch-all term for technology used to augment, streamline, digitize or disrupt traditional financial services, it refers to software, algorithms, and applications for both desktop and mobile (Stephanie & Dough, Forbes Magazine, accessed on 10 October 2022). New entrants in the financial technology space are creating rapid changes throughout the financial sector. The disruptive technologies driving start-ups and revolutionizing banking, payments, and insurance. Fintech focuses on the potential of new technologies in banking and other industries. Driven by what Gobble (2018) defines as digitalization and digitization, Fintech is increasingly embedded in everyday economic transactions. Ernst & Young's (2017) Fintech adoption index showed that nearly one-third of the consumers in the 20 markets surveyed use at least two Fintech services, and 84 percent of those surveyed were aware of Fintech services.

There is growing evidence that financial inclusion has substantial benefits for the excluded population, especially for women and poor adults in many countries, and policymakers in many countries have embraced financial inclusion as the key to economic empowerment and a solution to rising poverty levels. Financial inclusion is the process of ensuring that individuals, especially poor people have access to basic financial services in the formal financial system (Allen, Demirguc-Kunt, Klapper, & Martinez Peria, 2016; Ozili, 2018). The innovation world has already recognized the potential of financial innovation, and the number, variety, and reach of Fintech start-ups have risen in the last decade (KPMG 2018). Expanding technological affordances have changed the game. Fintech has previously grown on its promise to expand access to the financial system by providing services to traditionally unserved or underserved populations. But increasingly, the faster/cheaper/better service models offered by Fintech start-ups are disrupting the incumbent banking system. Financial products that traditionally have been the exclusive domain of traditionally licensed credit institutions—payment services and loans, among others—are now offered by Fintech firms (EBA 2017). These smaller, more agile companies support a greater diversity of products and providers; they promise greater portability of financial products that are now digitized, built on hybrid and cross-industry business models that allow them to access markets often closed to traditional banks and credit offertory. They also offer greater transparency and improved risk management, at least partly enabled by their ability to get instant customer feedback and use it to power real-time adjustments in the services they offer.

II. FRAMEWORK ADOPTED

Our study incorporates an extensive review of literature in the field of Fintech and how it has evolved over the last two decades. For better understanding, we have bifurcated the literature review into 3 timelines - 2010-2015, 2015-2020, and 2020- present. Our study begins with the introduction of Fintech and its incubation stage in the period of 2010-2015, further, we have explored the growth and regulations surrounding the Fintech industry, and the next section deals with the acceptance of Fintech across the globe.

The study aims to fulfil the following research objectives: -

1. To study the changing technology that led to the introduction of Fintech in three eras- Fintech 1.0, Fintech 2.0, and Fintech 3.0
2. To understand the key growth drivers that led to the transformation of Cash driven economy to Tech -Savvy economy
3. To study the prerogatives of different stakeholders (Government, institution, corporate bodies, Regulatory Bodies) to establish a fintech-enabled ecosystem.
4. To study the challenges and upcoming opportunities in the Fintech Ecosystem.

III. THE INCEPTION ERA OF FINTECH 2010-2015

It is possible to say that the Financial Crisis of 2008 was the turning point for the growth of Fintech. The perception of retail customers has shifted from what are the resources to who owns those resources, Arner et.al. (2015). In this section, we have reviewed the research work from the period of 2010 to 2015 and can surely say that those years witnessed a torrent of FinTech products which put not only the investors or consumers into the limelight but also the policymakers and the regulators.

According to Dapp's (2014) report, banks need to grind to give the nonbanking companies stiff competition in adapting the technology drive services. In addition to this, they also need to become net-savvy to cater to the needs of the internet-oriented consumers of today's world. The study also suggests that banks will need to work towards transparency and authenticity while going digital. According to the author, a favourable condition should be created by policymakers to make the market more competitive. The author focuses on the adaptation of the technological changes for which banks need to work on structural change. Moving forward, it is evident that the novel features of Fintech innovation will, as a result, require a rethinking of how we approach regulation and the processes we apply to rulemaking. Brummer and Gornfine (2014) have initiated such a project by outlining some of the avenues available to financial authorities seeking to keep pace with innovation, measure and ensure regulatory objectives, and react with agility and flexibility to fast-moving markets. They pointed out the two commonly adopted regulatory regimes which are Rules-based and Principles- based (PBR). Instead of using both approaches, authors have highlighted a more constructive lens with which to view these distinctions. It is by considering the objectives of any regulatory portfolio and situating them against the trade-offs of either regulatory approach. Dapp (2015) emphasizes the big question of the period 2010-2015 regarding the regulatory environment of the Fintech companies and the study calls for a regulatory environment that provides fair rules and a level playing field. The paper continues to throw light on the structural changes that traditional banks should adhere to. The author also provides a solution for the same by suggesting that implementing a platform policy with suitable program interfaceswill ultimately help the financial service providers to respond to technological achievements in the future thatthey have not anticipated yet. Arner et al. (2015)in their paper,have divided the evolution of fintech into three eras. FinTech 1.0 is from 1866 to 1987, FinTech 2.0 is from 1987 to 2008 and FinTech 3.0 is from 2008 to present. According to the paper, FinTech 3.0 has emerged from the Global Financial Crises, where, in developed countries, the demand and expectations of consumers have given rise to FinTech but in developing countries, the inefficiencies have given rise to the same. This study also discusses the flexible and forward-looking regulatory approaches regarding FinTech. In spite of the structural and regulatory environment challenges, the adoption of Fintech is surging, as per the study by Gulamhuseinwala et.al. (2015). The authors surveyed 10,131 digitally active users, for looking at the FinTech adoption in Australia, Canada, Hong Kong, Singapore, the U.K., and the U.S. They identified the 10 Fintech services which can be broadly categorized into four main heads, savings and investments, money transfers and payments, borrowing and insurance. According to the study, adoption is relatively high for such a new product- with 15.5% of digitally active consumers using FinTech products. From the conclusion of the study, money transfers and payments have become a highly adopted FinTech product.

IV. THE ACCEPTING ERA OF FINTECH 2016-2020

The study of the last 5 years primarily focused on the ecosystem of Fintech across the globe. Banks, policymakers, and regulators had been hard-pressed by the robust progression of Fintech and thus had to start working on their toes for making a conducive and collaborative environment among the participants of the Fintech ecosystem[6]. The period after 2015 witnessed a surge in the acceptance and adoption of Fintech products. In addition to this, the policymakers and regulators also started to adapt to the changes in a more systematic pattern.

Before 2015, there have been few studies in the Indian context in the area of Fintech. In spite of that, post-2015 extensive literature can be found which shows the progression of Fintech, across the globe and especially in the Indian context.

Where up till now, policymakers and regulators were pondering over the question, 'how to make the ecosystem of Fintech more favourable'? How to converge all the stakeholders of Fintech on one platform? From the very start of 2015, the answers were known to almost all the think tanks and they started heading toward the more tech-driven system.

The report of KPMG and NASSCOM discusses how India is transforming into a dynamic ecosystem for Fintech Companies. Being a cash-driven economy, it is very constructive to see that the transaction value for the Indian Fintech sector is estimated to be approximately USD 33billion in 2016 and is forecasted to reach USD 73 billion in 2020 growing at a five-year CAGR of 22%. According to the report, the Indian Government has taken many varied steps to penetrate the tech-driven economy, like, the Start-up India initiative launched by the government in 2016 which included USD 1.5 billion in funds for start-ups. In addition to this, there are many tax rebates and surcharge reliefs provided to merchants accepting digital transactions and start-ups by the government. The government and the regulators also focused on financial inclusion and enablement to add unbanked individuals into the banking sector, and for this, the government launched Jan Dhan Yojana, which included about 200 million users. Adding more to this area, Guild (2017) in his paper discusses the significance of adopting a responsive regulatory approach for boosting financial inclusion through technological innovation. Through the qualitative analysis of three cases, cashless payment systems in

India and Kenya and, peer-to-peer lending in China, Guild has presented how the countries are utilizing technology in the pursuit of inclusive finance.

While most of the studies showed an accepting picture of Fintech around the globe where the economies started working around the tech-driven storm, the issues related to the same also started popping up.

Mehrotra (2019) in his paper not only discusses Fintech as the vehicle of financial inclusion but also throws light on the challenges the Fintech companies are facing. For penetrating financial inclusion into villages, better infrastructure for Fintech is needed like electricity, telecom connectivity, and availability of minimum 3G spectrum etc. per se is a prominent issue in countries like India. Another challenge that the author spoke about is, the interfaces of Fintech companies are tailored for the affluent and middle class and not for the individuals of remote areas, and therefore it is not user-friendly for them. In addition to this, one of the major issues of Fintech is trust and cyber security, which goes hand in hand. Despite these shortcomings, according to the author, the need of an hour is not to succumb to the operational pitfalls but to build a robust framework to set a balance between innovation and compliance. Adding more to the issues related to customer trust, Kandpal and Mehrotra (2019), discuss that it is imperative for regulators and bankers to come together for strong and responsive regulatory infrastructure to reduce the increasing cyber fraud. The author suggests that the Fintech firms need to instil greater confidence in the customers and tap these existing customers, the traditional banks can leverage them in adopting digital payment methods. This can prove as a double sword, on one hand, the trust issues will be minimized as would be using the apps of their own banks and on the other hand, traditional banks would also be able to compete with the Fintech companies. Moving forward with the acceptance of fintech traditional banks should not only embrace the emergence of Fintech but also work on technological advancements to make it user-friendly and boost competition, Mnohoghitnei et al. (2019).

V. RISING ABOVE ALL THE ODDS 2021- PRESENT

Despite all the odds, the acceptance rate of Fintech has boomed in five to seven years, and covid-19 proved as an icing on the cake. Berg et.al. (2021) discussed the increasing rate of Fintech lending. the ease and convenience which it provides the customers, both to the lenders as well as the buyers. The paper also reviewed the growing literature on the emerging Fintech business models like buy-now-pay-later. Adding more to the benefits of Fintech, Bollaert et.al. (2021) discussed that Fintech has not at all dominated the traditional banks and instead it has made access to finance more prominent. Although, the author concludes his study by establishing that Fintech has yet not reached its maturity and it is an evolving industry which can pose an issue for the regulatory bodies. The study also discusses the collaborative approaches being used by traditional banks and Fintech companies, wherein, the banks are making use of technologies like blockchain. This is a way forward for the Fintech ecosystem. According to a report by KPMG, Top Fintech Trends for 2022 (2021), Fintech has seen immense growth and investment in the year 2021 and the report predicted the same will follow the subsequent years too. Following this, the report gives the top Fintech trends for 2022; first and foremost, embedded finance being the talk of the town, banks would be offering embedded solutions. With banks providing embedded finance services, their regulatory scrutiny would also increase and this makes it the second trend in the list. The next few trends deal with Fintech focusing on branding themselves as data organizations, unicorn losing their charm in the developed markets and ESG (Environmental, Social, and Governance) focused Fintech having a growth trajectory in the upcoming year.

VI. DISCUSSION AND CONCLUSION

Fintech has emerged as the platform for bringing together banks and major service providers like utilities, healthcare, education, retailers, etc. and has transformed the payment and settlement process from complex to highly simplified. The studies between the periods from 2010 to 2015 discuss structural changes which banks had to adhere to. Banks were needed to move forward by taking the challenge to change their way of operations, from traditional to technology driven. In addition to this, there was a need to moderate the hype of Fintech by introducing a robust regulatory framework to strike a balance between innovation and compliance and to ensure a service orientation over and above the commercial instinct.

With more and more penetration of Fintech into the markets, regulators received more conceptual clarity and insight into the solutions offered. Post 2015, the businesses and banks also got better receptive to Fintech. At the same time regulators were also able to assess the risk associated with the offered products. And with readiness to accept Fintech as the innovation of the century post Covid period has seen a dramatic increase in this industry.

With increasing usage of finance technology, countries have also started to see this as an opportunity for financial inclusion. Although, there is no denying that cyber security is still an issue but in spite of that the growth which the Fintech sector has shown is impeccable.

Research on Fintech will help the Bank understand better how it can support this evolving financial system, how it should design future policies and how it should use technology to enhance its capabilities. Part of upgrading its infrastructure involves exploring new technologies and the Bank will continue to undertake Point of Contact (PoC) with Fintech companies, as well as increase its work on Supertech. Rules and regulations should also keep pace with innovation and mitigate potential risks while preparing for future innovations, Mnohoghitnei et al. (2019).

VII. FUTURE SCOPE OF RESEARCH

In the first quarter of 2020, India overtook China in terms of Fintech funding, While Chinese Fintech companies attracted $270 million dollars in funding, Indian companies attracted a whopping $330 million (BW Business World, accessed on 8 March 2021). Fintech companies in India are spread across different categories such as: payments, lending, insurance, personal finance management, investment platforms, and more. There is 2000+ Fintech start-ups in India, and the biggest category is Payments. This is because no matter one's job, gender, or age, everyone has bills to pay, invoices to process, and online orders to pay for. India should develop its Fintech infrastructure, specifically its payments architecture, decreasing the rate of cyber frauds, as well as its soft infrastructure, relating to rules and regulations of the Fintech industry to mitigate the potential risk.

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