Rethinking Digital Finance on Financial Inclusion and Stability: Evidence from Andhra Pradesh

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Abstract

There is emerging evidence that promoting financial inclusion and digital banking can have a positive effect on underserved communities. Unfortunately, the potential drivers and challenges of digital approaches to financial inclusion have not been the focus of mainstream studies. By developing an all-encompassing framework for digital financial inclusion, this research hopes to shed light on the disconnect between the financial inclusion discourse and conceptions of access and usage of digital technology. According to our research, traditional "supply oriented" financial infrastructure and a simplistic "adopter vs. non-adopter" framework are insufficient to accommodate the complex social dynamics of financial interaction with new technologies. We draw the conclusion that despite the fact that digital services have simplified and filled the gap of physical access to financial services, these services have not been utilized due to a lack of basic connectivity, financial literacy, and social awareness. This essay makes a theoretical contribution to the literature on the uptake of digital financial services by presenting a comprehensive critical analysis of, and a fresh take on, the mechanisms by which digital finance can promote financial inclusion. This paper fills a gap in the literature by providing a critical study of digital finance and some of the challenges it raises. While there is little doubt that individuals, businesses, and governments can all profit from digital finance and financial inclusion, there are still several obstacles that need to be overcome before these advantages can be fully realized. This article's discussion of digital finance concerns is pertinent to the ongoing discussion and country-level efforts aimed at expanding access to finance through digital means in developing and emerging economies.

Keywords: Financial Inclusion, Fintech, Digital Finance, Financial Stability,

Financial Risk, Financial Institutions

1. Introduction

By guaranteeing access to banking services, we can create a more welcoming and accepting society. Business and economics scholars pay a lot of attention to discussions about the impact of digital technology on economic growth. In recent years, the attention of stakeholders (including politicians and academics) has been focused on the emergence of digital financial services as a possible pathway towards financial inclusion. In particular, the usage of mobile phone technology and Internet-enabled money transfer systems have increased the availability of financial services. Everyday monetary activities that could help ensure a society's economic growth could be influenced and shaped by the adoption and use of digital services. It seems that in many developing countries, financial inclusion has the potential to be a revolutionary agent that can contribute to poverty reduction and ensure a more financially inclusive society. This is why commercial banks in Bangladesh have been spending so much on IT infrastructure upgrades: to facilitate smoother transactions, expand their customer base, and provide superior goods and services. Bangladesh is behind on providing access to a broader context for financial institutions, despite the fact that financial inclusion is widely regarded as a crucial key for development. WBG's Universal Financial Access (UFA) framework places Bangladesh among the top 25 nations where 73% of global.

To combat poverty in poor and emerging economies, the G-20 and the World Bank have spearheaded efforts to expand access to financial services since 2010. (GPFI, 2010). Numerous issues persist that, if addressed, could make digital finance work better for individuals, businesses, governments, and the economy, and so the relevance of digital finance and financial inclusion to poverty reduction and economic growth is currently attracting the attention of policymakers and academics. Increased access to money for low-income persons, lower costs of financial intermediation for banks and Fintech providers, and higher aggregate expenditure for governments are just a few of the many benefits of digital finance and financial inclusion.

True, financial literacy has acquired prominence on the policy agendas of many nations as a necessary condition for successful financial inclusion, alongside consumer protection (OECD/INFE, 2015a). Recognizing the importance of coordinated policy approaches to financial education, G20 leaders at the 2012 Los Cabos summit endorsed the High-Level Principles on National Strategies for Financial Education proposed by the Organization for Economic Cooperation and the International Network on Financial Education (OECD/INFE) (G20 2012). Principle 6 of the High-Level Principles for Digital Financial Inclusion states, "Strengthen digital and financial literacy and awareness." This is one example of the increased attention paid to this issue by G20 leaders in 2016. (GPFI 2016).

People that are economically marginalised have a home. In a recent study, Financial Inclusion Insights (FII) looked into Bangladesh and found that 47% of the population is financially included thanks to the use of mobile money (17%), banks (5%), and non-bank financial institutions (23%). Digital payment usage is similarly lower among women (32% vs. 56% among men).

If we want reliable, comparative statistics on people's financial literacy skills, the OECD/INFE suggests conducting either national surveys specifically designed for this purpose or coordinated international research (OECD/INFE, 2019). Organizations like the Organization for Economic Cooperation and Development (OECD)/International Financial Education (INFE) (2018) and the World Bank (2018) have created internationally standardised financial literacy surveys. But the characteristics of digital financial literacy discussed above are not covered in these polls. We suggest including an uniform set of questions that addresses these dimensions in such surveys. The supplementary surveys need to be conducted as quickly as possible to establish a standard for understanding the level of digital financial literacy in each country.

Despite the financial sector's rapid expansion, few studies have examined the potential drivers and challenges of digital approaches to broadening access to financial services. Existing research discusses the concept of digital financial inclusion, but it does not delve deeply into the underlying features of digital divide and social inclusion in access to digital finance. Furthermore, previous research has investigated how digital and mobile financial services have affected the economy of Bangladesh. For instance, Yesmin and Paul discuss the new business phenomenon that digital financial services and m-banking (i.e., bKash) have created and their strategy for penetrating the Bangladeshi market. Recent research has used Bangladesh's ICT policy to demonstrate that the concept of digital inclusion is missing from government digital programmes and policy plans. Therefore, whether or not financial inclusion is achieved through the use of digital financial technologies (fintech) and digital services in the rural context of Bangladesh is still unknown. To this end, we suggest a comprehensive framework to support the ongoing discussion about digital and social inclusion in the 21st century.

Possibilities in the digital realm are vast, varied, and plentiful. In the midst of this epidemic, however, our reliance on the Internet and other digital resources has grown to the point where basic necessities like food, clothing, a place to live, a job, and information are difficult or impossible to obtain for those who do not have access to the Internet. Major obstacles remain, particularly in the realm of digital financial inclusion, despite the fact that Aadhaar has been rolled out nation-wide and approximately 400 million people have opened bank accounts in the form of Jan Dhan. Due to the absence of a safety net, approximately 440 million people working in the informal economy were compelled to take to the roadways. Access to and willingness to use digital payment systems, mobile apps, digital wallets, and digital transactions are not the only determinants of the widespread use of these services. This change is also an evolving sociobehavioral phenomenon in the community and wider society. Consumers in both urban and rural India clearly seek simplicity, comfort, and familiarity, and gravitate toward platforms that they are accustomed to, as evidenced by the rapid transition from SMS to WhatsApp communications. Even while metropolitan areas are digitising at a rapid pace, with the buzzword 5G already circulating for the past few years, majority of rural India has not been able to accept online banking or digital payments for a number of reasons. Only around a quarter of India's 800 million people currently have access to the internet, and most people in rural areas lack access to stable digital infrastructure. Most people in rural India live paycheck to paycheck and aren't aware of the government pension plan, which is one of the most efficient in the world. As a

result, they don't have enough savings or disposable money to maintain in the bank or go beyond basic needs to shop online. While most individuals in the world have access to a bank account, they lack the digital and financial literacy to do anything more than make phone calls or send texts. Meanwhile, most of rural India's connected and smartphone-wielding populationnumbering in the hundreds of millions—is thoroughly accustomed to using WhatsApp for all of their everyday needs. As WhatsApp waits for official approval to begin offering in-app purchases to all users. So that you may see this in action, let me give you an example from my own life: It has been my experience that organic farmers in Rajasthan can get by without formal education or training as long as they join a WhatsApp group and start sharing and learning from one another. They would effortlessly use payments eliminating friction and engaging in the digital economy. More than that, establishing a digital identity would provide opportunities like microlending, insurance, and other safety nets that they lack presently. The real India will benefit greatly from this breakthrough. If the app or digital activity that rural consumers already regularly use to complete other tasks also provides them with payment and transaction capabilities, this might be a major potential for them. Whatsapp has evolved from a simple chat app into an integral part of our everyday lives, and now it offers useful capabilities for businesses. Soon, it may also become the go-to app for digital payments.

2. Literature Review

(PWC, 2019) The Indian Fintech market has been growing upwards in the last five years Increased entrepreneurial activities in India and the growth of Fintech start-ups have, in turn, resulted in increased adoption of Fintech solutions by the customers in India.In 2018, India ranked second globally in the Fintech adoption rate. The average percentage of Fintech users in the country is 57.9%, behind China's 83.5%, and much higher than developed countries' 34.2% (Academy of Internet Finance, Zhejiang University, 2018).With a strong technological ecosystem as its backbone and a huge market base with low penetration of financial services (FS), the Indian Fintech market holds immense potential.In India, along with sustained funding, both supply-side factors such as Government and regulatory support, and technological advancements and demand-side factors such as large unmet needs and rising customer digital expectations have been converging to drive the Fintech market

(**Ozili, 2018**) The term _Fintech' denotes _financial technology' and is defined as the delivery of financial and banking services through modern technological innovation led by computer programs and algorithms There is no single and commonly accepted definition for digital finance. But,certain features of digital finance products and services are consensually accepted. The features include the usage of the internet, access to finance products online, and no need of visiting the branches of FSPs. So, digital finance comprises all finance products, services, technology, and infrastructure that facilitate access to payments, savings, credit, remittance, and other financial transactions through online platforms and thus, digital finance avoids direct dealing with the banks and FSPs

Wang (2018) used balanced panel data for five years from 2011 to 2015 for 29 provinces

of China to perform regression analysis to check the relationship between digital inclusive finance index and poverty rate. However, there is no mention of the source or method of calculating the digital inclusive finance index. The regression results confirm that poverty rates decline with an increase in digital inclusive finance index.

Peterson K Ozili (2018), Impact of Digital Finance on Financial Inclusion and Stability, this article provides a discussion on digital finance and its implication for financial inclusion and financial stability. Digital finance through Fintech providers has positive effects for financial inclusion in emerging and advanced economies, and the convenience that digital finance provides to individuals with low and variable income is often more valuable to them than the higher cost they will pay to obtain such services from conventional regulated banks.

Huma Haider (2018), Innovative financial technologies to support livelihoods and economic outcomes, the study the examined the innovative financial technologies support livelihoods of people. Access to digital technologies, in particular mobile phones, internet connectivity and biometric authentication, allows for a wider range of financial services, such as online banking, mobile phone banking, and digital credit for the unbanked. Digital financial services can be more convenient and affordable than traditional banking services, enabling low-income and poor people in developing countries to save and borrow in the formal financial system, earn a financial return and smooth their consumption.

Asongu and Odhiambo (2017) study mobile banking usage and its effects on quality of growth, inequality and poverty in developing countries. Their findings are that mobile banking usage leads to increased quality of growth and decreases inequality.

Agrawal (2017) in her study points out that there is still a long way to go before India can fully recognise the potential of digital. Investment in financial as well as digital infrastructure, along with literacy programs and electronic trainings should be the first step towards digital financial inclusion. At the same time, there should be no compromise made on the security front.

Ansari and Khan (2017) examined the effect of technological advancements and IT revolution on the operation of Indian banks by comparing the growth rates of credit cards, debit cards, NEFT and RTGS transactions and ATMs in terms of their value as well as volume. During the study period of 2011 to 2016, there was found to be a continuous increase in the value of online and electronic payments, with mobile banking topping the list.

United Nations, (2016) the goal of financial services made available via digital platforms is to contribute to poverty reduction and to contribute to the financial inclusion objectives of developing economies

Jack and Suri (2016) measure the impact of mobile money on poverty and genders in Kenya. Their study concluded access to mobile money leads to an increase in per capita

income however the increase is greater in female headed households than male headed households.

Yan Shen and Yiping Huang (2016), Introduction to the special issue: Internet finance in China Internet finance, which is often referred to as "digital finance" and "Fintech". Internet finance refers to the new business model of utilizing the Internet and information communication technologies to accomplish a wide range of financial activities, such as third-party payment, online lending, direct sales of funds, crowd funding, online insurance, and banking. The Internet can significantly lower transaction costs and reduce information asymmetry, enhance the efficiency of risk-based pricing and risk management, and expand sets of feasible transactions.

AgufaMidika Michelle (2016), The Effect Of Digital Finance On Financial Inclusion In The Banking Industry In Kenya, The study concluded that digital finance doesn't have any correlation on financial inclusion in banking sector in Kenya since banking institutions adoptdigital financial services to lower operating cost associated with opening and operating branches to improve their profitability and financial performance and not to foster financial inclusion.

Ghaffar&Sharif (2016) examined the level of financial literacy in Pakistan. The study revealed that the persons, who have more financial knowledge, usually save money. It was found in the study that middle-aged and older people were careful in spending their money and male respondents usually have better saving habits. Further it was also found that respondents earning high salaries agree that financial literacy do help in leading a financially secure life.

Aggarwal and Gupta (2016) identified the linkage between the gender gap in stock market participation and financial literacy while controlling for two major externalities of education level and wealth. It was found that female teachers participate less in stock market to an extent of 16.7% as compared to male. Results of corroborate the view that non-participation in stock markets was a common response to deficiencies in advanced financial literacy and lack of risk attitudes.

Manyika, (2016) Digital financial inclusion provides banks lower costs by reducing queuing lines in banking halls, reduce manual paperwork and documentation and maintaining fewer bank branches).

CGAP(2015) Digital financial inclusion can improve the welfare of individuals and businesses that have a liable digital platform with which to access funds in their bank accounts to carry out financial transactions

Asian Development Bank (2015) this paper tests the relationship between financial inclusion, poverty and income inequality in developing Asia by creating their own index for financial inclusion and performing regression analysis. They conclude that financial inclusion leads to a decrease in poverty rates. Our paper follows some of the theoretical and mathematical approaches used by this paper

Totenhagen, C. J., Deborah (2015) has identified the key considerations and promising delivery methods which may inform positive changes in financial literacy and behaviour among youth. Study also has conducted a comprehensive review of the current literature on youth financial literacy education and identified characteristics of financial education programs which impudence positive changes.

Hospidoet.al (2015) has measured the impact of financial literacy training in compulsory education in Spain. Study used a matched sample of students and teachers in Madrid and two different estimation strategies. It was found in the study that students of private schools did not increase their knowledge much, possibly due to a less intensive implementation of the program. Study also analyzed the bias that arises because the set of schools that participate in financial literacy programs was not random.

Arif (2015) examined the relationship between financial literacy and the impudence of the factors that affect the investment decision. The data was collected from 154 respondents through modified questionnaire containing questions related to demography of the investors, factors affecting the investment decisions and financial literacy level of the individual investors at Karachi Exchange. concluded financial Stock Study that the literacy level of the investors was below average. Significant difference in financial literacy was found between the respondents regarding age, gender, work activity and marital status of the respondents.

Morris and Koff (2015) has studied the relationship between financial literacy level of Canadian university students and their prior education on the subject. The results revealed that education on financial topics improved financial literacy level. However, the improvement was almost insignificant for courses taken at the secondary level. The results also showed that financial literacy was influenced by socio demographic variables as well.

Potrichetal (2015) has study the individual financial level through socioeconomic variables. 1400 sample were collected and data analysis was performed by using descriptive statistics and multivariate analysis techniques. Following variable were considered to measure the financial literacy; dependent family members, occupation, educational level, father's educational level, mother's educational level, individual income and family income. Results of study were indicating that men who do not have dependent family members and have higher educational and both individual income and family income levels are those who are more likely to belong to the group with high financial literacy levels.

M and M (2015) has examined the financial literacy and its determinants among Gen Y employees in Coimbatore city. The study found that gender, education, income and age impact the level of financial literacy. Study also concluded that financial literacy level is low among Gen Y employees in Coimbatore city.

Weihuan, Arner and Buckley (2015) studied the digital financial services in the context of China, on how the world's largest e-commerce company, Alibaba Group, has become a pioneer in developing various financial products, including Alipay (payment platform and wallet),

AliFinance, YuéBao (online money market fund) and MYbank (loans to SMEs). Despite being a late mover into the industry, China is now one of the worlds most active and advanced digital financial services market. Regulation, hence, plays a big role in the rate of growth and acceptability of digitization in a country.

Cuesta, Ruesta, Tuesta, and Urbiola (2015) suggested that as consumers have got more and more used to digital interactions in their daily lives, there has been a surge in demand for financial services that are available digitally- anywhere and anytime. This has, in turn, fuelled the birth and growth of FinTech firms, which have brought about totally new business models such as crowd funding, peer-to-peer lending, virtual currency and financial advisory. Not to forget the regulatory leniency faced by these online firms, which further gives them an edge over traditional financial institutions.

World Bank(2014). Digital finance can lead to greater financial inclusion, expansion of financial services to nonfinancial sectors, and the expansion of basic services to individuals since nearly 50% of people in the developing world already own a mobile phone Digital financial inclusion involves the deployment of the cost-saving digital means to reach currently financially excluded and underserved populations with a range of formal financial services suited to their needs that are responsibly delivered at a cost affordable to customers and sustainable for providers

Shih and Ke (2014) has discussed consumer money attitudes, financial literacy regarding financial decisions, and financial behaviour. Study suggested that consumers who have retention planning and achievement-esteem attitudes toward money make high-risk financial decisions; anxiety toward money tends to exist mainly in low-risk investors. Financial literacy affects consumer financial behaviours, and demographic variables play segmentation roles.

Chen, J., & Lam, K. (2014).As per one study (Mckinsey& Company, 2014), managers of Asian financial institutions are increasingly becoming aware about the potential of digitization to create or destroy a firm's value. Although service providers as well consumers are majorly conservative in their approach, the stimulus for adoption will become stronger as the digital generation becomes wealthier, wiser and older. The firms would soon follow the customer's expectations with their innovations.

Asongu (2013) uses mobile penetration rates as a proxy for mobile banking and performs two stage least squares regression to study the effect it has on income inequality and showed that mobile banking is significant in reducing the income inequality

Park (2011) examined the impact of three dimensions of digital literacy on privacy-related online behaviours: (a) familiarity with technical aspects of the Internet, (b) awareness of common institutional practices, and (c) understanding of current privacy policy. Hierarchical regression models analyzed data from a national sample of 419 adult Internet users. The analyses showed strong predictive powers of user knowledge, as indicated by the three discrete dimensions, on privacy control behaviour.

Way & Wong (2010) state that the development and use of technology-based tools for financial literacy education has grown rapidly in recent years, often based on the presumption that digital media will enhance past practice. The studies present an ecological model for technology based financial literacy education intervention and propose an action agenda for practice and further research.

In 2007, Srivastava, while studying the perceptions and drivers of Indian consumers towards internet banking using qualitative exploratory research, found that demographic factors such as gender, income and education had a clear influence on the usage of online banking. The study also pointed out the factors- awareness campaigns, user friendly interface, lower charges, greater security – that were necessary to alter the customer perceptions in a positive manner.

3. Conceptualframework:understanding digital financialinclusion

For rural households to improve their socioeconomic standing, financial inclusion can help them gain access to and make use of banking services. Affordable access to financial services is what's meant by "financial inclusion". Access to financial services, affordability of financial services, and the use of financial services are the three pillars of a well-developed financial system . To this end, the government of India has created a number of plans and programmes and taken a number of other measures, such as expanding access to banking services, for rural households.

Even if technological advancements like automated teller machines (ATMs), debit and credit cards, online money transfers, internet banking, etc. have improved banking processes, customers' lack of familiarity with these options remains a major barrier to their widespread adoption and use. 66.1 percent of all debt in rural India was held by both formal and informal lenders.

The proportion of institutional credit to overall credit is 33.8%, whereas in the state of Andhra Pradesh it was 358.2% and 64.2%, respectively. Households have a hard time gaining access to official financial services, as seen by their heavy reliance on informal credit sources to meet their financial obligations. There are a number of factors that can lead to an inefficient distribution of financial services, including a lack of knowledge, a long distance to the nearest bank, high interest rates, a lack of assets, a reliance on others due to old age, illiteracy, and a lack of income or savings . Therefore, the purpose of the study titled "Financial inclusion of Rural Households in Andhra Pradesh, India" is to examine the factors that influence rural residents' propensity to use banking services, as well as to pinpoint the obstacles that prevent more of them from becoming financially included.

4. RESEARCH PROBLEM

The number of people using and businesses dedicated to financial technology (Fintech) in India have both increased steadily during the past few years. There were 174 Fintech businesses in 2015.to the tune of over 2,000 sales in India alone that year2018. Estimates put the total value of deals at \$73in 2020's Billion (Micro Save, 2018). Moreover, The benefits of digital money management go far beyond the privileged urban elite. In recent years, dependable and hassle-free digital banking services haveproviding accessible and low-cost banking options for underserved populations.average-income citizens. Institutionalized banking systems in Indiacould not cater to a wide variety of customers in different areas.superior, low-cost, and easily-understood financial services bycommercial practises that have stood the test of time. However, FinTech firmstogether with the cutting-edge quality of their goods and services, they can save time, get somewhere quickly, and keep people safe.infiltrate the homes of people from all financial brackets and geographical areas. As a whole, financial services in the digital realmexpansion of theFinancial services have expanded in terms of their scale, scope, and reach, andvital to filling in the remaining financialinclusion. Furthermore, digital technologies provide accessible andmethod(s) that are easy for peopleto employ on their own or in their homesin order for companies to put away money, pay bills, get loans, andget covered by insurance. As a result, it's crucial to zero in on thedigital finance and the role of financial technologyaccessibility to credit in India.

5. RESEARCH OBJECTIVES

The primary objectives of the study are;

1. To study the development and adoption of financial technology and digital infrastructure in Andhra

Pradesh.

2. To analyze digital financial innovations in terms of products, and institutions.

3. To assess the role of digital finance companies in promoting digital financial inclusion in Andhra

Pradesh.

6. THE METHODOLOGY OF THE RESEARCH

This is a descriptive research that relies solely on secondary sources. The World Bank, the Consultative Group to Assist the Poor (CGAP), the National Payments Corporation of India (NPCI), the Reserve Bank of India, and the Alliance for Financial Inclusion all contributed to the research (AFI).

7. DEVELOPMENT AND ADOPTION OF FINANCIAL TECHNOLOGY IN ANDHRA PRADESH.

Between 2014 and 2017, there was a significant rise in the availability of credit in India. Eighty percent of adults can use a bank account as of 2017; in 2005, the figure was In 2014, that figure was a meagre 53%. This arduous path to entry ismostly because of government initiatives to incentivize the growth of the digital marketplace and banking sector inIndia. The digital infrastructure known as India Stack is responsible forIn the last 35 years, the number of people who have gained access to theirpopulation of one million (AFI, 2018). That of India's government (GOI), Indian government agencies charged with overseeing the country's financial markets have significant impact on the growth and popularity of FinTechwithin the borders of India. Several noteworthy Fintech projectsGoods and Services Tax implementation is one such development.(Goods and Services Tax), "PM Jan DhanYojna,"The creation of a network of computers. The development of a robust digital infrastructure has a top priority for the Government of India. Government officials have been preparing aadvanced network systems for the digital age of today and tomorrow the implementation of UPI, or Unified Payments Interface, National Payments Corporation of India, Digital India Initiative, and Nationwide Availability of High-Speed Internet and Smart Phones. TheAs of December, the total amount of UPI transactions had surpassed Rs 1 trillion. The number of mobile internet users in 2018 was estimated to be 520 million.India (PWC, 2019). Additionally, the Government of India encourages creativity and opening up the financial market to more competition by allowingacknowledgment of digital finance, promotion of startups through the startup India programme, and the establishment of a payments bank and a small financing bankorganisations as Non-Bank Financial Institutions(NBFCs).India's central bank, the Reserve Bank of India (RBI), has completed anddeclaring "Regulatory Sandboxes" (RS) for Financial Technology companiesIndia in August of next year, allowing banks, and financial institutions to create regulatory sandboxes' in which to try out novelitems for use in the fields of retail payments and digital Master YourManaging clients and assets is a bustling business. A controllingA "sandbox" is a regulatory environment designed by the financial industry to test new ideas. Regulatory to permit pilot projects for live testing of technologies bybusinesses that are privately owned but publicly regulated concession, dispensation, or other time-bound in one case) while being monitored by the authority (Ivo Jenik, 2017). The government realises the importance of fostering fin-tech and is therefore actively working to provide suitable digital platforms and infrastructures. Government's attention and resources on the Indian marketpromotes user participation in Fintech throughdemonetization, DBT, and related projectsDBT, Bharat Interface for Money, and other UPIPayment System Based on Bharat QR Code and Aadhar Number (BHIM)Pay (Rupay), and the Automated Exchange of PaymentUse of ACH Networks and Debit Cards (NACH), Instantaneous Financial Transactions (IMPS) and Fee-Freecosts for National Electronic Fund Transfer transactionsSpecifically, Near-Real-Time Gross Settlement and NEFT (RTGS).

8. Payments made digitally in Indian stores, by volume, from Table:1

Particulars	2015	2016 2017	2018	3 2019	2020
Paperclearing	1253.1	1196.5 1101	.9 1206	5.61170.6	1123.7
Retail electronic Clearing	1018.7	1687.4 3141	.6 416	1.7 5467.2	27113.2
Debitand Creditcards	7219.1	8423.5 10036	12054 1335	8 16046	
Prepaid PaymentInstruments	144.2	314.46 747.9	96 1963	3.6 3459.0	4604.3
TotalRetail Digitalpayments	9636.1	11621 15028	8 193	86 23455	28887

Beginning on March 31, 2015, and ending on March 31, 2020 (in Million)

The RBI Bulletin Is Our Source.

In Table 1, we can see thata. Digital transactions have increased by 199.78% in the retail sectorthe selected time frame.b. Overall, the rise of digital payment methods in India hasbeen 198.64%.c. The prevalence of electronic clearing in the retail sectora staggering 598.2 percent increase during 2014-2016.d. Significant growth can also be seen in the use of debit and credit cards.A total of 122.2% of all transactions were made using cards.development as of March 31, 2020 compared to March 31, 2019. March 2015.e. There is a prepaymentinstruments component that progressively increased by 3092% in the specified time frameTable 2:

The Economic Impact of Digital Payments on India's Retail SectorBeginning on March 31, 2015, and ending on March 31, 2020 (in Billion Rupees).

Table:2

Particulars	2015	2016 2017	2018 2019 2020
Paperclearing	93003	85434. 82206	80958 81893 82460
Retailelectronicclearing	47415	65365 91407	13191719201458745
Debitandcreditcards	22143	25414 29323	30208 3821445121
Prepaid PaymentInstruments	79.05	213.42 490.14	838.011416.32128.76
TotalRetaildigital payments 313538388456	162641	176,427 203428	243922

The RBI Bulletin Is Our Source.

The above table allows us to see;

a. Digital transactions at retailers have increased by 139% since theyear 2013-14.b. The prevalence of electronic clearing in the retail sectora staggering 445.2% increase over 2013-14 levels.c. Use of plastic money has increased to 103.7%.development as of March 31, 2019 compared to March 31, 2018. March 2014.d. There is a prepayment instruments component that growth of 2,593% throughout the specified time frame. Table 2 and Table 3 both show that digital media usage is increasing at a faster rate thanclient interest in monetary commodities and services over accasion in India. Advanced online banking servicesOffering ground-breaking new digital financial products and services inAs a result of India's efforts, more people have access to digital financial services. India's expanding prominence in the financial technology industry has led to a plethora of newoccur in the financial sector, and the financial products andservices. Aside from the acceptance of Fintech businesses are taking up the risk of deposits. Fintechsoffer a wide range of alternative financing optionsto the public at large, and more specifically the general population outside of the purview of the conventional banking system. Ahead of thisnowadays, the first thing that comes to mind for most people is the They used to have mental images of banks. But in modern times, thesituation has shifted and Fintechs have assumed the favoured location for obtaining financial assistance because of the low barriers to entry, quick processing times, andonline shopping, etc. There are a plethora of forwardthinking bankshave surfaced in India's burgeoning financial sector. Particularly notable are theInstitutions with a history of digital innovation in banking and their digitalThis table displays many goods.

Unique digital banking and financial services in IndiaCommerce monetary and financial institutions that use digitalproducts/services.

9. Description

Term used to describe borrowing and lending between individuals who do not know one another P2P lending, often known as "social lending" or "crowdlending," is a kind of borrowing and lending between individuals rather than between financial institutions.loans on an individual basis outside of the financialmediator who makes use of a web-based system.Purchase-Order Financing or Invoice FundingInvesting in the Supply ChainA variety of financing options for the supply chain are open to companies.individuals as a discount (up to 80%) on their invoiced costs.Therefore, in order to sustain the operating funds of thebusinessCrowdfunding It's a strategy for getting donations from a sizable group of people.number of persons that individually contribute asmall sum, usually through theinternet to raise money for a cause. It may be eitherbased on a system of donations, shares, rewards, or debt.Instant Cash Loans A microloan is a short-term loan for a small amount.salaried individuals at a high-interest rateThis is repayable when the borrowersbe paid the following amount due.Money from salesadvanceCredit card purchases can result in a loan of up to 200%.percentage-wise, each month's Point-of-Sale

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salesmachinesIn-Depth: Finance with a Later Payment Date A revolving line of credit designed for small and medium sized businessesan amount of money that has been set up for a loan andOnly interest on the amount actually spent is due.Purchaser Financing Through an Electronically Connected Marketplace It's a specialised line of credit for online merchants to help with inventories.purchaseLoan for a Franchise Business loans without collateral that provide working capitaland fresh franchisees to set up orincrease the success of their company.

10. CONCLUSION

Technology advancements like AI, ML, BI, ID authentication, and blockchain have reshaped the business landscape.the structure and operation of banking systems,the beginning of a new era in digital banking. All of this digital stuffcompanies that deal with digital finance are included in the financial era.electronic banking and related services. Startups in the Financial Technology Industryhave altered the ways in which we handle money, and insurance, the market is being led by these firms. Head in the field of digital financial inclusion. The proliferation of fintech has increased people's access toaccounts maintained in Indian banks by legal adults. The role of financial technologymajor factor in expanding availability by 27% by adults to their savings accounts over a period of three years. The development of fintech has led to the creation of cutting-edge, digital finance businesses and computerized goods Institutions and goods of this type areworldwide efforts to expand access to digital financial services as in India because to their quickness, ease of use, and approach without discrimination. A system was devised to predict financial inclusion rates, digital payments rates, average income, and other characteristics up to the year 2020 using a variety of worldwide statistics. The findings point to a dramatic rise in the use of digital payment methods and financial inclusion, bringing hundreds of millions of people into the formal economy, For each metric, the study breaks down the most affected countries by dollar value, percentage change, and regional impacts. In terms of absolute dollar gains, China and the United States benefit the most, while Turkmenistan benefits the most relative to other countries. An estimated \$12 trillion will enter the world's formal economy between 2015 and 2020, generating \$4.1 trillion in tax revenue. This is a huge chance that governments all across the world might seize.

References

- 1. PWC. (2019). Emerging technologies disrupting the financial sector. Mumbai: ASSOCHAM.
- 2. Ozili, P. K. (2018, January 8). Impact of Digital Finance on financial inclusion and Stability. Essex.
- 3. Wang, Y. (2018). Empirical Research of Poverty Alleviation Effects of Digital Inclusive Finance from the Perspective of Internet—Based on 2011-2015 Provincial Panel Data. *DEStech Transactions on Economics, Businessand Management*, (icssed).

- Peterson K Ozili, "Impact of Digital Finance on Financial Inclusion and Stability" (2018)
- 5. Haider, H."Innovative financial technologies to support livelihoods and economic outcomes" (2018)
- Asongu, S. and Odhiambo, N. (2017). Mobile banking usage, quality of growth, inequality and poverty in developing countries. *Information Development*, 35(2), pp.303-318.
- Agrawal, T. J. (2017). Cashless India A myth or reality. *International Journal of Commerce, Business and Management*, 6(3), 57-61. Retrieved from http://www.iracst.org/ijcbm/papers/vol6no32017/8vol6no3.pdf
- Ansari, S. J., & Khan, N. A. (2017). E-Banking in India: Progress and challenges. *International Journal of Innovative Research and Advanced Studies*, 4(8), 334-340. Retrieved from <u>http://www.ijiras.com/2017/Vol_4-Issue_8/paper_61.pdf</u>
- United Nations (2016). Digital Financial Inclusion.International Telecommunication Union (ITU), Issue Brief Series, Inter-agency Task Force on Financing for Development, July. United Nations. Available at: http://www.un.org/esa/ffd/wpcontent/uploads/2016/01/Digital-FinancialInclusion_ITU_IATF-Issue-Brief.pdf
- 10. Jack, W. and Suri, T. (2016). Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution. *American Economic Review*,104(1), pp.183-223.
- 11. Yan Shen and Yiping Huang "Introduction to the special issue: Internet finance in China" china economic journal" (2016)
- 12. AgufaMidika Michelle, "The Effect Of Digital Finance On Financial Inclusion In The Banking Industry In Kenya" (Nov 2016)
- 13. Ghaffar, S., & Sharif, S. (2016). The Level Of Financial Literacy In Pakistan. *Social Scince Research Netwok, Retrieved from* <u>http://Ssrn.Com/</u> Abstract=2724533, 1-29.
- 14. Aggarwal, D., & Gupta, D. (2016). Awareness of Financial Literacy Among College Students. *Journal of Management Sciences and Technology*, 2(1),1-13.
- 15. Manyika, J., Lund, S., Singer, M., White, O., & Berry, C. (2016). Digital Finance for All: Powering Inclusive Growth in Emerging Economies. McKinsey Global Institute. September. The USA.
- 16. CGAP (2015). What is Digital Financial Inclusion and Why Does it Matter? 10 March 2015. Available at: http://www.cgap.org/blog/what-digital-financialinclusion-and-why-does-it-matter
- Totenhagen, C. J., Deborah, C. M., Faber, K. M., Bosch, L. A., Wiggs, C. B., & Lynne, B. M. (2015). Youth Financial Literacy: A Review of Key Considerations and Promising Delivery Methods. *J Fam Econ Iss*, *36*, 167-191.
- Hospido, L., Villanueva, E., &Zamarro, G. (2015). The Impact of Financial Literacy Training InTheImpact of Financial Literacy Training In. *IZA Discussion Paper No. 8902*, *1-44*. I, S. T. (2016).*International Education & Research Journal*[*IERJ*], 2(12), 17-19.

- 19. Arif, K. (2015). Financial Literacy and Other Factors Influencing Individuals'Investment Decision: Evidence from A Developing Economy. *Journal of Poverty, Investment And Development*, 12, 74- 84.
- 20. Morris, T., &Koff, V. (2015). The Link Between Financial Literacy and Education of Canadian University Students. *International Journal of Innovation and Research In Educational Sciences*, *2*(3), 160-170.
- Potrich, A. C., Vieira, M. K., &Kirch, G. (2015). Determinants of Financial Literacy: Analysis of The Influence of Socioeconomic and Demographic Variables. *RevistaContabilidade&Finanças*, 26(69), 362-377.
- 22. M, S., & M, G. (2015). A Study on Financial Literacy and Its Determinants among Gen Y Employees In Coimbatore City. *Great Lakes Herald*, 9(1),35-45.
- 23. Zhou, W., Arner, D. W., & Buckley, R. P. (2015). Regulation of digital financial services in China: Last mover advantage. *Tshingua China Law Review*, 8(1), 25-62. doi:10.2139/ssrn.2660050
- 24. Cuesta, C., Ruesta, M., Tuesta, D., &Urbiola, P. (2015). The digital transformation of the banking industry. *BBVA Research*. Retrieved from https://www.bbvaresearch.com/wpcontent/uploads/2015/08/EN_Observatorio_Banca_Digital_vf2.pdf
- 25. The World Bank. (2014). Global Findex. The World Bank.
- Shih, T. Y., &Ke, S. C. (2014). Determinates of financial Behavior: Insights Into Consumer

Money Attitudes and financial Literacy. Service Business, 8, 217-238.

- 27. Chen, J., & Lam, K. (2014). How to prepare for Asia's digital-banking boom. *McKinsey and Company*. Retrieved from <u>http://asia.udp.cl/Informes/2014/Asias_digital-banking_boom.pdf</u>
- 28. Asongu, S. (2013). Mobile Banking and Mobile Phone Penetration: Which is More Pro-Poor in Africa?.*SSRN Electronic Journal*.
- 29. Park, Y. J. (2011). Digital Literacy and Privacy Behavior Online. *Communication Research*, 40(2), 215-236.
- 30. Way, W. L., & Wong, N. (2010). Harnessing the Power of Technology to Enhance Financial Literacy Education and Personal Financial Well-Being: A Review of the Literature, Proposed Model, and Action Agenda. *Center for Financial Security WP*, 1-100.
- 31. Srivastava, R. K. (2007). Customer's perception on usage of internet banking. *Innovative Marketing*, 3(4), 67-73. Retrieved from https://s3.amazonaws.com/academia.edu.documents/35551228/im_en_2007_04_Srivasta https://s3.amazonaws.com/academia.edu.documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu.documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu/documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu/documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu/documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu/documents/35551228/im_en_2007_04_Srivasta https://saamazonaws.com/academia.edu/documents/35551228/im_en_Srivastava_India.pdf

- 32. Dayanithi, S. "Study On Digital Banking Services After Demonetisation With Reference To Kancheepuram District." *International Journal Of Human Resource Management And Research (IJHRMR)* 8.6 (2018): 93-100.
- 33. Jindal, Neena, Kritika Thakur, And Tania Sharma. "Digital India: Challenges, Solutions And Its Impact On Society." *International Journal Of Environment, Ecology, Family And Urban Studies (IJEEFUS)* 9.2 (2019): 83-90.
- 34. Dixit, Radhika, And Munmun Ghosh. "Financial Inclusion For Inclusive Growth Of India-A Study Of Indian States." *International Journal Of Business Management & Research* 3.1 (2013): 147-156.
- 35. Ghosh, Mun Mun, And Arindam Ghosh. "Financial Inclusion Strategies Of Banks: Study Of Indian States." *International Journal Of Applied Financial Management Perspectives* 3.2 (2014): 990-996.
- 36. Patel, Ayush Kumar, Et Al. "Publication Trends In Financial Inclusion: A Scientometric Assessment And Visualization." *Library Philosophy And Practice (E-Journal)* 5115 (2021): 1-20.
- 37. Beg, S. A. N. A., And Naushadul Haque Mullick. "Increasing Financial Inclusion Through Islamic Banking In India." *International Journal Of Business Management And Research (IJBMR)* 6.1 (2016): 27-34.