DIGITAL FINANCIAL INCLUSION: A COMPREHENSIVE REVIEW OF ECONOMIC GROWTH AND DETERMINANTS

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Abstract:
This review simplifies the understanding of how digital financial inclusion impacts economic growth and the factors that drive this connection. By examining existing literature, we explore the roles of technology, regulations, and user behaviors in shaping this relationship. The aim is to provide a straightforward insight into the current state of digital finance's influence on economic development. This review serves as an accessible guide for future research and policymaking, offering a clear path to comprehend the significance of digital financial inclusion for sustainable economic growth.

Key words:
Digital financial inclusion, Economic Growth, Key Determinants, Digital Literacy & Transformation

Digital Financial Inclusion & Economic Growth: Digitization is that multiplying force in India right now. The trio of measures to boost financial inclusion (Jan Dhan), a universal biometric identification system (Aadhaar), rising Smartphone penetration (JAM, or Jan Dhan, Aadhaar, Mobile), coupled with the move in July towards to a fully online goods and services tax (GST) system changes are fast-tracking India’s digitization and, in turn, bringing about rising financial access and rapid formalization of the India economy. Digitization will have far-reaching implications for the corporate, household and public sectors. The big upside for the economy will comes from better credit delivery. Historically, banks primarily lent to large corporate or smaller amounts that were backed by collateral. This was driven by the lack of data availability on the basis of which smaller loans could be properly underwritten. This will change. Digital transactions and GST leaves a data footprint that lenders can use. This will allow formal lender to assess cash flows of smaller borrowers and, hence, price loans better. Flow-based lending will, thus, pick up, with the SME (small and medium-sized enterprises) sector being the key beneficiary.

Review of Literature of Digital Financial Inclusion & Economic Growth:
Ozli (2023) found that digital finance research is growing faster and many studies have investigated existing issues in digital finance that are relevant for policy and practice. Regarding the digital finance developments around the world, this study showed that the Fintech has industry has been the largest beneficiary of investments in digital finance with the total number of users of mobile money services surpassing 1 billion internationally.
Podolski (2020) & Emara and Zhang, (2021) study that, In developing countries, the use of digital technology in finance has helped to increase the size of remittance inflows and has contributed to high levels of financial inclusion.
Jhamb & Aggarwal (2018) from 2010 to 2012, the number of users of mobile banking services grew 277.68% (from 5.96 million to 22.51 million) and the value grew a whopping 875.6% (from Rs. 6.14 billion to Rs. 59.90 billion). These figures clearly indicate that mobile banking in the country is growing at very high rates. Yet as of 2014, there were 350 to 500 million different mobile subscribers and only 22 million mobile banking customers. The RBI clearly recognized the potentials for a widespread increase in mobile banking as well as the opportunity of increasing financial inclusion in the country, and made recommendations for “addressing the consumer acquisition challenges as well as the technical aspect”. Recommendation such as alternate channels for mobile registration such as ATMs, uniformity in the mobile registration process across banks, and standardization and simplification of the MPIN generation process were made by the RBI.” And with addition to its AADHAR card issuance and linking it with mobile phones was an appreciable move by the Prime

Minister making clear, true and transparent information about the population of India and their lifestyle so whole it is an excellent step taken up the government of India.
Sinha (2017) according to our communication minister over billion mobiles, 325 million broadband connections and 306 million new bank accounts, India has become a case study in digital financial inclusion and "India is a leading case study of commitment to digital transformation and financial inclusion. The 500-million mobile connections in rural areas offer an opportunity to achieve digital and financial inclusion". he said that Unique Identification Number (Aadhar) helped in linking and disbursing money directly to the beneficiaries under the government's various welfare schemes.
Morgan (2017) researched that India has 1.18 billion telephone subscribers, 97% of who have wireless connections. Aadhaar cards are now owned by nearly 99% of the adult population. This network has motivated the digital payment system. The Aadhaar bridge payment system has generated 826 million total transactions since January 2016.There are 63%Indians who have bank accounts that can be accessed through basic feature-phones which have been provided the National Unified USSD Platform (NUUP) promoted by the National Payments Corporation of India (NPCI). This platform is interoperable and works without internet connectivity. Furthermore, with 29 banks creating applications using the United Payment Interface (UPI), person-to-person payments, bank transfers, utility payments and payments to businesses, can now be made using smart phones. These are the few technology solutions that host basic financial transactions. Both private and public players have begun collaborating, and co-creating innovative solutions to bring financial services to consumers. They come together as digital solution providers, enabling digitalization of one or more financial service – payments, credit, savings, insurance or investment and can be classified as shown.
Khurana (2017) This paper discusses the efforts of Government of India in promoting cashless transactions. Considering all these efforts, move towards digital India is no longer seems to remain just a dream yet All over India step are being taken to make this dream come true and the benefits that it will provide in long run are worth making these hard efforts. All these benefits have been discussed and the hurdles in path to the success of this programmed have also been disclosed in this paper.
Manyika et al. (2016) digital finance also benefits governments by providing a platform to facilitate increase in aggregate expenditure which subsequently generates higher tax revenue arising from increase in the volume of financial transactions.
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.
McKinsey (2016) study the inclusive growth of global economy by digital finance. According to author, Two billion individuals and 200 million businesses in emerging economies today lack access to savings and credit, and even those with access can pay dearly for a limited range of products. Rapidly spreading digital technologies now offers an opportunity to provide financial services at much lower cost, and therefore profitably, boosting financial inclusion and enabling large productivity gains across the economy. While the benefits of digital finance-financial services delivered via mobile phones, the internet or cards-have been widely noted, in this report we seek to quantify just how large the economic impact could be.
Midha (2016) this research is an effort to overcome the barriers to Digital India program and to find some remedies for providing better future to everyone. This study focused on how the government services can be available to every citizen electronically and improve the quality of life of every citizen. Digital financial inclusion center for microfinance, **IFMR Research (2015)** explore that In India, and in other developing nations like South East Asia, there is a growing need to integrate various channels of digital financial inclusion for the masses; this includes connecting banks with the points of sale and other financial accounts, with mobile wallets or electronic gazettes. The National Payments Corporation encouraged by the RBI & led the effort to digitize these banking channels. The government has also encouraged a burst of private innovation by promoting payment banks, a new category of Indian banks. Though electronic mobile banking mechanisms exist and have been gaining popularity among the well-off sections of society, they are still not targeted to service the poor and under banked. They are essentially 'underserving the underserved'.

Kaur (2015) according to this paper our government will invest 84.4 billion in to provide internet connectivity, better access to government services, development of IT skills and also Setting up of a pan India fiber-optic network by June 2016 & Provision of Wi-Fi services in cities where the population is more than one million and also in tourist centers. Provision of broadband internet access at a cost of USD 5.9 Billion to 250000 village cluster by 2019 Digital lockers will be provided to all the citizens, so that they can store their documents and records. It is setting up of 40000 internet access points, Creation of direct jobs in IT sector for 1.7 crore people. These are the initiatives taken under digital India for development of IT sector. With the development of IT sector the objective of financial inclusion can easily be fulfilled.

Agarwal (2014) According to this study India is at moderate level of financial inclusion as compare to the other countries. There is a close relationship between financial inclusion and development but due to some reasons growth is not possible. Growth is possible by proper mechanism from top to bottom and literacy is prior requirement for create awareness about financial services. there is a need to adopt strategies like advanced technology, opening up the bank branches in rural areas, no-frill account, use of regional languages, synergistic partnerships with technology service providers, introduction of new saving schemes for low income people etc. to strengthen financial inclusion.

Garg (2014) Even though enough efforts are being made by all stake holders viz Regulator, Government, Financial Institutions and others, the efforts are not yielding the kind of result expected. The regulator has to create a suitable regulatory environment that would keep the interest of all the stakeholders. A structured expansion and appropriate regulatory norms addressing the banks concern and inclusion of NBFCs, MFI and SHG in the last mile connectivity of peoples to financial services could resolve the peoples concern. Bank use intensive mobile banking services to deliver banking and financial services to the people. Innovative product, out of the box service models, effective regulatory norms and leveraging technology together could change the landscape of the current progress of the much needed and wanted, Financial Inclusion Program.

Bayero (2014) the study investigated the effect of business model of financial service providers, awareness, enhanced customer value proposition, and accessibility of payment infrastructure on financial inclusion. The result shows that the model of the study is significant and that awareness, customer value, and infrastructure have significant statistical association with financial inclusion. In contrast, business model has no unique significant contributions in the model. However, among the three significant variables, infrastructure has the highest contribution in the model; followed by customer value and awareness in that order

Wright (2013) financial inclusion and digital payments will have a large impact on the world economy. While some nations will benefit more than others, adding people into the formal economy has numerous positive economic benefits including growing incomes and shrinking the shadow economy. Based on a cumulative $12 trillion of income projected to be brought into the formal economy worldwide between 2014 and 2020, the answer to the research question of how financial inclusion and digital payments would impact individual tax revenue was found to be an additional $4.1 trillion globally. This represents a significant opportunity for governments around the globe to take note of, and it is the hope of this study that the results will inspire them to materialize the gains.

Wooder& Baker(2012) In Africa the most successful launched mobile banking facility has been M-Pesa in Kenya with over 14 million registered users and it is the best example of a mobile money service for the financially excluded.

Barbesino et al. (2005) In Europe, the internet has emerged as a widely recognized distribution channel for the banking industry, and all traditional banks as well as new players, are discovering its effectiveness compared with other channels.

Review of Literature of Determinants of Digital Financial Inclusion:

Qazi(2017) Digital financial literacy is defined as having the knowledge, acquired skills and necessary habits to effectively use digital devices for financial transactions. This intersects with an individual's basic literacy level and their ability to use digital devices/technology. According to this article safety and security are the top priorities for everyone. Remaining safe is an individual's own responsibility which has to be taken seriously by them. Payment providers can put in the most fool proof systems in the world but the human element of payment, and hence actions resulting in fraud, cannot be emphasized enough. Whether it is reducing risk, improving uptake and usage, enhancing consumer protection or avoiding over-indebtedness, digital financial literacy is the (convenient) marriage of all three paradigms: digital, finances and literacy.

Anshika & Singla(2017) Asserted that lower level of financial literacy India is a major obstacle in the path financial inclusion and will further hamper the path of economic growth of Indian economy. To improve financial literacy, they suggested that more capital infusion is needed to conduct workshops, Seminars at the schools, colleges, workplaces and residential areas. Small events on teaching significances of the investment opportunities should be organised at various schools, colleges, offices etc. to increase practical knowledge of the finance in day to day life.

Kaul et al. (2017) The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy. With the help of which they can protect their money in situations like inflation, depression, and know about different financial products and services to save it for their better future. Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people. By this we can reach on a conclusion that the new technology needs to harnessed well and for this it is not only the availability but also the knowledge to use it and get benefits from it.

Tabusum(2014) This paper discus with the study of the usage of Digital resources in arts and science college students of Tiruvallur District students. Analysis of the data collected from arts and science students revealed that they are digitally literate and have an average knowledge about it. Majority of the students are average in computer literacy level.. About half of male students are very confident in using digital resources and tools whereas majority of female students are confident in using digital resources and tools. A significant low usage was reported on certain digital resources. This situation might be as results of lack of awareness about the digital resources. It is obvious that proper training is needed to efficient usage of digital resources.

Chandra et al.(2010) Though a number of studies highlight existence of financial illiteracy among rural population, there are also evidences which show that financial illiteracy among large segments of urban population has limited their access to financial services.

Taylor (2010) Identified major factor which influences the level of Financial Literacy. Using panel data models on data from general household survey, he found that the key determinants to financial literacy were demographics like age, health, family size and structure, housing occupancy, and employment status of the individual and family members. He found that older men and women who worked full-time with an employed partner had the best financial capability.

Rajan(2008) Considering these problems arising out of financial illiteracy, the Rajan committee emphasizes the need of providing financial literacy from early schooling years by introducing children to financial terms such as income, expenditure, savings, deposits etc. In addition, TV channels could also be encouraged to run educational programmes on household budgeting.

Collard et al. (2001) reported that widespread lack of knowledge about financial products and services and basic money management skills as the issues related to financial literacy in Bristol, and recommended initiation of school based schemes which provide money management skills and financial education as the remedial measures. Other suggestions they provided includes independent advice and explanation on financial instruments by an individual who understands finance, face-to-face programmes for adults etc.

Kumari & Viz Studied the efforts made by important regulatory authorities in promoting financial literacy. Researcher highlighted various financial literacy programmes being run all over the country and their importance in making people financially literate. They made suggestions for the policymakers in identifying the growing needs for financial awareness and developing suitable financial literacy programmes.

According to **Behan,** A digital service provider (DSP) applies the principles of Internet service delivery, meaning its delivery architecture is integrated, seamless, intelligent, automated, and simple and in real time also. A DSP provides digital services through a variety of business models built on a networked ecosystem of consumers and other service providers with a laser focus on driving almost all interaction online and across devices. Digital service provider use five strategies for CSPs such as- Analytics everywhere: Data is gold, Innovate above the network, Digital, mobile, social channels, Data monetization, “free” stuff and advertising & “Platformification”: Ecosystems, APIs and the integrated enterprise business. Dramatic market and technological trends have resulted in severe challenges for CSPs - creating the need for a digital transformation. Finally, more and more organizations are leveraging the power of analytics to create insights to drive profit and growth. To flourish in the digital age, CSPs need to focus on converting themselves into digital service providers.

Efobi et al. (2014) explores the factors influencing the access to and use of banking services in Nigeria. The results reveals that the individual attributes, income and ICT inclination are significant factors influencing the use of bank services in Nigeria.

According to **Ewlett Packard Enterprise**, Globally there is a high degree of the digital transformation taking place as CSPs increasingly look to become Digital Service Providers (DSPs). Almost all CSPs have a defined DSP strategy (98%), but they differ in terms of when it will be implements. This transformation is being driven in part by competitive pressures & by the desire to realize additional revenue. In most cases, it is a desire to grow, not to protect existing business that is the main driver. Companies in all regions have high growth expectations, with new services expected to generate 25 percent additional revenues by 2020.A clear preference is seen for using IT players as key partners in 5G transformation across all regions. New digital entrants and software providers are expected to be the main challengers to Telco’s in the DSP space.

Research Gap Statement: While numerous studies have explored the relationship between digital financial inclusion and economic growth, a critical examination of the existing literature reveals several noteworthy research gaps. Firstly, there is a limited focus on understanding the nuanced impact of digital financial inclusion on specific sectors of the economy, such as agriculture, education, or healthcare. Second, there is a dearth of research that systematically investigates the role of cultural and social factors in influencing the effectiveness of digital financial inclusion initiatives. Third, the majority of existing studies concentrate on national-level analyses, overlooking the regional and local variations that may significantly affect outcomes.

Moreover, there is a noticeable gap in the literature concerning the potential trade-offs and unintended consequences associated with digital financial inclusion. Understanding the risks, challenges, and potential negative externalities is crucial for developing balanced and effective policies. Additionally, there is a need for more longitudinal studies that track the long-term impact of digital financial inclusion initiatives, providing insights into sustainability and adaptability over time.

Furthermore, research on the determinants of successful digital financial inclusion is often broad and lacks granularity. A more granular examination of specific determinants, such as the role of user education, trust-building mechanisms, and the adaptability of technology, would contribute significantly to the existing knowledge base.

Addressing these research gaps will not only enhance our understanding of the complex relationship between digital financial inclusion and economic growth but also provide more targeted insights for policymakers, practitioners, and researchers seeking to optimize the impact of digital financial inclusion initiatives on sustainable economic development.

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