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Impact of Digital Finance on Financial Inclusion

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Abstract

Digital finance and financial inclusion has several benefits to financial services users, digital finance providers, governments and the economy; notwithstanding, a number of issues still persist which if addressed can make digital finance work better for individuals, businesses and governments. The digital finance issues discussed in this article are relevant for the on-going debate and country-level projects directed at greater financial inclusion via digital finance in developing and emerging economies. Financial services are the lifeblood of an economy. For the equitable and sustainable growth of the nation, a strong financial system is vital particularly for financially excluded and underserved population. Undoubtedly, the Reserve Bank of India and the Indian government have introduced several policies that aggressively expand the reach of formal financial services. But despite these efforts, the majority of individuals and small businesses lack access to even basic savings and credit products, which hinders economic growth and perpetuates poverty. The Government has planned to use technology especially - Mobile based services in a big way to fast track financial inclusion in the country. This paper attempts to understand the concept of digital finance, the way it targets inclusive growth along with the risks involved. Focusing on digital finance, this article provides a discussion on digital finance and explores the impact of digital finance for financial inclusion.

Keywords: Economic Growth, Financial Inclusion, Digital Finance.

Introduction

Since 2010, the G-20 and the World Bank have led the initiative for increased financial inclusion in developing countries to help reduce poverty levels in developing and emerging economies (GPFI, 2010). Today, the relevance of digital finance and financial inclusion for poverty reduction and economic growth is attracting the attention of policy makers and academics, largely because of the number of issues that persist which if addressed can make digital finance work better for individuals, businesses, governments and the economy. Digital finance and financial inclusion have several benefits to financial services users, digital finance providers, governments and the economy such as increasing access to finance among poor individuals, reducing the cost of financial intermediation for banks and Fintech providers, and increasing aggregate expenditure for governments. The financial sector is transaction-intensive and has always been at the forefront of adopting new technology. Rapidly spreading

digital technologies offer an opportunity to provide financial services at much lower financial transaction cost which aims to boost financial inclusion and enable large productivity gains across the economy. Using digital channels rather than brick-and-mortar branches increases convenience for users, opening access to finance for people at all income levels and in far-flung rural areas. Digital finance covers enormity of new financial products, financial businesses, finance-related software, and new form of customer communication and interaction that facilitate individuals and companies to have access to payments, savings, and credit facilities via the internet while dealing directly with the financial service provider.

Objectives of the Study

- To understand the concept of digital finance.
- To examine the impact of digital finance for financial inclusion

Concept of Digital Finance

From a practitioner's viewpoint, digital finance is financial services delivered through mobile phones, personal computers, the internet or cards linked to a reliable digital payment system. Digital finance refers to the financial services delivered over digital infrastructure-including mobile and internet. It involves the use of new cost - saving digital means like mobile phones, payment cards and POS terminals etc. to reach currently financially excluded so as to provide them the formal financial services. It promises to transform finance via three key components: a digital transactional platform, retail agents, and the use by customers and agents of a device - most commonly a mobile phone - to transact via the digital platform. Mobile phones, computers, or cards used over point-of-sale (POS) devices connect individuals and businesses to a digitized national payments infrastructure, enabling seamless transactions across all parties. Digital finance should improve the welfare of individuals and businesses that have formal bank accounts and have funds in their bank accounts to complete multiple financial transactions. However, the expected benefits of digital finance can only be fully realized if the cost of providing digital financial services is negligible or zero.

Digital finance is the financial services delivered over digital infrastructure-including mobile and internet-with low use of cash and traditional bank branches. Mobile phones, computers, or cards used over point-of-sale (POS) devices connect individuals and businesses to a digitized national payments infrastructure, enabling seamless transactions across all parties. Our definition is intentionally broad, including: *f* All types of financial services, such as payments, savings accounts, credit, insurance, and other financial products. *f* All types of users, including individuals at all income levels, businesses of all sizes, and government entities at all levels. *f* All types of providers of financial services, including banks, payment providers, other financial institutions, telecoms companies, financial technology (fintech) start-ups, retailers, and other businesses.

Digital Technologies Enable Broad-Based Financial Inclusion

Mobile and digital technologies, which are spreading around the world at extraordinary speed and with disruptive power, can change this situation. In emerging economies, the next frontier is finance. For most people in these countries, the story begins in the palm of their hand, with a mobile phone. This can provide easy access to a digital wallet that could be used for all payment transactions, such as receiving remittances, wages, and government subsidies,

making purchases at stores, or paying utility bills and school fees. Using a mobile phone rather than cash saves considerable travel time and cost, reduces the risk of theft, and boosts convenience. It also gives access to a broader range of financial services that can be delivered digitally, such as savings accounts or loans. Mobile phones are becoming ubiquitous as networks increase coverage and quality. Mobile networks now reach more than 90 percent of people in emerging economies. Phone ownership still lags behind network coverage, but it too is growing rapidly. In 2014, nearly 80 percent of adults in emerging economies had mobile subscriptions, compared with 55 percent who had a financial account. Mobile phone ownership is projected to reach over 90 percent of adults by 2020. For financial-services providers, the cost of offering customers digital accounts can be 80 to 90 percent lower than using physical branches. This enables providers to serve many more customers profitably, with a broader set of products and lower prices. Over time, many individuals may begin to use their digital accounts to save money for the future. As individuals and businesses make digital payments, they create a data trail of their receipts and expenditures that enables financial service providers to assess their credit risk. The information allows providers to underwrite loans and insurance policies for a larger set of borrowers with greater confidence. Providers can also collect digital repayments on an automated basis-and send text messages to prompt borrowers when they have missed a payment. Research in Bolivia, Peru and the Philippines has found that when providers use such SMS "nudges", household saving rates increase. The full suite of savings, credit, and insurance products becomes cost-effective to provide even for people at low incomes and for very small businesses.

Digital Finance for All: Powering Inclusive Growth in Emerging Economies

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 offer 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. f Digital finance has the potential to provide access to financial services for 1.6 billion people in emerging economies, more than half of them women. It could increase the volume of loans extended to individuals and businesses by \$2.1 trillion and allow governments to save \$110 billion per year by reducing leakage in spending and tax revenue. Financial-services providers would benefit too, saving \$400 billion annually in direct costs while sustainably increasing their balance sheets by as much as \$4.2 trillion. f Overall, we calculate that widespread use of digital finance could boost annual GDP of all emerging economies by \$3.7 trillion by 2025, a 6 percent increase versus a business-as-usual scenario. Nearly two-thirds of the increase would come from raised productivity of financial and non-financial businesses and governments as a result of digital payments. One-third would be from the additional investment that broader financial inclusion of people and micro, small, and medium-sized businesses would bring. The small remainder would come from time savings by individuals enabling more hours of work. This additional GDP could lead to the creation of up to 95 million jobs across all sectors. f The potential economic impact varies significantly depending on a country's starting position. We conducted field research in seven countries that span geographies and income levels: Brazil, China,

Ethiopia, India, Mexico, Nigeria, and Pakistan. Lower-income countries such as Ethiopia, India, and Nigeria have the largest potential, with the opportunity to add 10 to 12 percent to their GDP, given low levels of financial inclusion and digital payments today. In comparison, middle-income countries such as China and Brazil could add 4 to 5 percent to GDP-still a substantial boost. f The rapid spread of mobile phones is the game changer that makes this opportunity possible. In 2014, nearly 80 percent of adults in emerging economies had a mobile phone, while only 55 percent had financial accounts-and mobile phone penetration is growing quickly. Mobile payments can lower the cost of providing financial services by 80 to 90 percent, enabling providers to serve lowerincome customers profitably. The data trail these technologies leave can enable lenders to assess the creditworthiness of borrowers, and can help businesses better manage their finances. f Businesses and government leaders will need to make a concerted effort to secure these potential benefits. Three building blocks are required: widespread mobile and digital infrastructure, a dynamic business environment for financial services, and digital finance products that meet the needs of individuals and small businesses in ways that are superior to the informal financial tools they use today. Broadening access to finance through digital means can unlock productivity and investment, reduce poverty, empower women, and help build stronger institutions with less corruption-all while providing a profitable, sustainable business opportunity for financial service providers. The benefits for individuals, businesses, and governments can transform the economic prospects of emerging economies.

Digital Finance leads Inclusive Growth

Innovation in digital finance facilitates increase in aggregate expenditure which subsequently generates higher tax revenue arising from increase in the volume of financial transactions. The full-scale digital finance adoption can significantly reduce the circulation of bad (or fake) money, etc. and thereby, reduces the risk of loss, theft and other financial crimes posed by cash- based transactions as well as the costs associated with transacting in cash. It provide customers a great control to handle personal finance, enable quick financial decision making, and the ability to make and receive payments within seconds. In a country as diverse as India, broadening access to finance through digital means can unlock productivity and investment, reduce poverty, empower women, and help build stronger institutions with less corruption-all while providing a profitable, sustainable business opportunity for financial service providers.

Undoubtedly, the Reserve Bank of India and the Indian government have initiated several measures like Opening of no-frills accounts, relaxation on know-your customer (KYC) norms, engaging business correspondents (BCs), use of technology, adoption of Electronic Benefit Transfer (EBT), simplified branch authorization, and opening of branches in unbanked rural centers, etc. to insistently expand access to formal financial services. But despite these efforts, the underprivileged are totally unaware of the benefits that they can reap out from the mandate of financial inclusion. However, much of these problems can be addressed by the use of technology. The rapid spread of mobile phones is the game changer that makes this opportunity possible. Recent improvement in the accessibility and affordability of digital financial services via widespread mobile and digital infrastructure as well as a dynamic business environment for financial services has helped people to move from cash-based transactions to formal digital financial transactions through effective use of ever evolving robust methodologies. The access

to digital transactional platforms by providers of insurance and risk management products allows people to manage risks related to commodity price movements; longevity, disability, and death of human beings; death of livestock; rainfall; and damage to property.

The convenient access to diverse range of financial products and services tailored to the needs of individuals as well as small, medium and large businesses leads to greater economic stability and increased financial intermediation, both for customers and for the economy. Such digital transactional platform drives financial and monetary system regulators. It provides a platform to government to boosts aggregate expenditure which in turn improves GDP levels. Thus, Innovation and digitalization has provided banks with an opportunity to reinvent them and be more customer-centric. Digital finance has facilitated the momentum of the changing dynamics in financial services sector. Digitization of payments has enabled the Indian Government to show its commitment in improving the lives of its people and driving inclusive growth.

Every step towards full digitization has the power to transform finance in developing economies. In the long run, the benefits of digital finance would go far beyond expanding access, driving down costs, and increasing the convenience of transactions. As the network of digital payment users grows, economies of scale drive down costs, and even more people are able to join. Finally, digital-payment network would be a part of the basic infrastructure of an economy that can underpin a broader and more innovative array of business activities creating more service options for customers and additional potential revenue sources for financial-services providers and other businesses.

Pros And Cons of Digital Finance

Pros

- Expansion of financial services to non-financial sectors
- Convenient and secure banking services to poor individuals
- Boost the GDP of digitalised economies by increasing aggregate expenditure
- Reduce the circulation of bad/fake money (v) Greater control of customers' personal finance
- Quick financial decision-making (vii) Ability to make and receive payments within seconds.
- Generates revenue to digital finance providers

Cons

- Digital finance do not serve individuals that do not have mobile phone or digital devices
- It relies excessively on internet connectivity, which excludes individuals that do not have internet connectivity
- The way digital finance is introduced in a country (voluntarily or forced) can lead to voluntary financial exclusion if the population is not ready for it
- Digital data security breaches are common and can lower customers' trust in digital finance platforms
- Systemic black-swan risks, when they occur, can be fatal for digital financial services around the world

- Fee-based digital finance platforms will benefit high and medium income individuals at the expense of poor and low income individuals who cannot afford the associated transaction costs.
- Many policy and regulatory environments are not enabling full-scale digital finance.

Table: 1 Risks Associated with Digital Finance

The first component i.e. the digital transactional platform consist of at least one bank and one nonbank in both the electronic storage and management of data and the holding of customers' funds. Protecting customer data and funds involves the risks related to real-time accuracy and reconcilability of the records.

The quality and reliability of the digital technology used by the device and the digital transactional platform involves privacy and security risks as large number of agents handle customers 'transactional and other data and the profile of previously excluded and underserved customers.

The use of agents as the principal customer interface introduce new operational, financial crime and consumer risks, many of which are due to the physical distance between agents and the provider or the agent network manager. Operational risks include fraud, agent error, poor cash management by the agent, and poor data handling. In addition to the financial crime risks of fraud and theft (including data theft), agents may fail to comply with anti money laundering rules regarding customer due diligence, handling records, and reporting suspicious transactions.

Source: Secondary data

Apart from the risks associated with the three component model, Digital Finance also introduces risks for customers due to their lack of familiarity with the products, services, and providers and their resulting vulnerability to exploitation and abuse. These risks may be even higher if the new providers offering the services are not subject to the consumer protection that applies to banks and other traditional financial institutions. However, the digital finance providers also, based on their own internal risk assessment which may change from time to time can choose to withdraw or discontinue the provision of specific digital finance services to high-risk rural areas or communities that do not have the supporting infrastructure to sustain specific digital finance services, thereby leading to lower financial inclusion (Kaur, 2015). Understanding and mitigating these risks would help to achieve the game-changing potential rewards of digital finance.

Conclusion

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. Economic development is usually a long journey, but digital finance solutions can radically speed the progress, and at a relatively affordable cost. Imagine the person in a rural area winning back the time spent traveling many miles on foot or by bus to a cash agent, and being able to work instead. Digital Financial Inclusion has been instrumental in bringing almost all families of the country into the formal financial system and enabling citizens at grassroots level to perform financial transactions and keep their hard-earned money safe. Digital finance is not a miracle

cure for all the world's ills, but it is within reach, and available now to emerging economies willing and ready to seize its many benefits. However, the rapid development and constant changes in the digital technologies challenge the ability of regulators to catch up. Both too much and too little intervention by policy makers entails risks. Even in light of new types of financial crime online, however, the opportunities of digital finance for inclusion, efficiency, and innovation will likely outweigh the risk. Digitizing finance will be a multiyear effort for many countries but the sooner they start, the faster the rewards will come, in the form of higher growth, greater innovation, and more inclusion. Billions of people across emerging economies possess the mobile handset that can connect directly into the national payments system.

References

- Barbesino, P., Camerani, R., & Gaudino, A. (2005). Digital finance in Europe: Competitive dynamics and online behaviour. Journal of Financial Services Marketing, 9(4), 329-343.
- Caruana, Jaime. (2014). Welcoming Remarks for 2nd GPFI Conference on Standard-Setting Bodies and Financial Inclusion: Standard Setting in the Changing Landscape of Digital Financial Inclusion, hostedby the Financial Stability Institute at the Bank for International Settlements, 30-31 October.
- ADB (2016) Accelerating Financial Inclusion in South-East Asia With Digital Finance. Technical report.
- Allen, F., Demirguc-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation, 27, 1-30.
- Bank of England. 2014. "Innovations in Payment Technologies and the Emergence of Digital Currencies." Quarterly Bulletin 2014
- CGAP (2015). What is Digital Financial Inclusion and Why Does it Matter? 10 March 2015. Available at: http://www.cgap.org/blog/what-digital-financial-inclusion-and-why-does-it-matter accessed 10 November 2017
- Kate Lauer, Timothy Lyman (2015). "Digital Financial Inclusion" CGAP publications, 10 April 2015. http://www.cgap.org/publications/digital-financial-inclusion
- Kaur Hardeep (2015). "Digital Financial Inclusion: It's Impact and risks involved." International Journal of Business Management and Scientific Research, 12, 37-40.
- Ketterer, J.A. (2017). Digital Finance: New Times, New Challenges, New Opportunities. White Paper.
- 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. USA.
- Gomber, P., Koch, J. A., & Siering, M. (2017). Digital Finance and FinTech: current research and future research directions. Journal of Business Economics, 67(5) 537-580.
- GPFI Conference on Standard--?Setting Bodies and Financial Inclusion: Standard Setting in the Changing Landscape Of Digital Financial Inclusion 30 and 31 October 2014 http://www.gpfi.org
- Grossman, Jeremiah, and Michael Tarazi. (2014). Serving Smallholder Farmers: Recent Developments in Digital Finance. Washington, DC: CGAP (Consultative Group to Assist the Poor).
- Shivam Rai (2014). "Facilitating Financial Inclusion through Digital Transformation" 17 January, 2014. www.newgensoft.com GPFI (Global Partnership for Financial Inclusion).
- Peterson K. Ozili Essex Impact of digital finance on financial inclusion and stability, http://www.elsevier.com/journals/borsa-istanbul-review/2214-8450
- Scott, S. V., Van Reenen, J., & Zachariadis, M. (2017). The long-term effect of digital innovation on bank performance: an empirical study of SWIFT adoption in financial services. Research Policy, 46(5), 984-1004.
- https://www.mckinsey.com