



ROLE OF DIGITIZATION IN FINANCIAL INCLUSION

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Abstract

The digital economy is rapidly establishing itself as the most important engine of growth, competition, and progress on a global scale. About the fact that many people have been turned down, the digital economy has a lot of opportunities to support budgetary integration for long-term financial growth. Financial inclusion entails bringing financial services to the most vulnerable and low-income segments of society, with the intention of allowing an ever-increasing number of people to access them. The advantages and obstacles of governments transitioning from cash to digital (electronic) government to individual (G2P) payments are examined in this article. Digital payments provide confidential and convenient financial services, which may be particularly relevant for women, because they are protected by an effective customer financial security system. Governments will set a precedent by putting government salaries and welfare transfers into accounts. Digitizing G2P payments has the ability to lower rates, improve quality and accountability, and make recipients get more comfortable with digital payments.

Keywords: Digital Economy, Financial Services, E-Transactions, Digital Financial Services.

Introduction

The term "digital financial inclusion" refers to marginalized and underserved communities' digital access to and use of structured financial services. Such programs should be tailored to the needs of the client and provided in a responsible manner at a rate that is both affordable to the consumer and viable for the provider. A digital transactional interface, retail agents, and the use of a smart phone – most commonly a cell phone – by consumers and agents to transact through the platform are the three main components of all other digital financial services. A digital transaction - based interface allows a customer to use a computer to make or receive deposits and transactions, as well as to store money electronically from a bank or a nonbank that is allowed to store electronic value.¹ Customers can turn cash into electronically transferred value and back into cash by using retail agents equipped with a wireless interface attached to communications systems to send and receive transaction data. Agents can also conduct other duties, depending on relevant regulations and the relationship with the principal financial institution. The consumer interface may be digital (for example, a cell phone) that transmits data and information or an instrument (for example, a credit card) that attaches to a digital device (e.g., POS terminal).²

Over the last decade, the government and industry have collaborated to build an infrastructure to provide digital financial services to low-income households in rural and urban areas, aided by rapid technical advancement. This includes a number of innovations that support the public infrastructure of the digital economy by allowing digital transactions between banks: Unified Payment Interface (UPI), Immediate Payment Service (IMPS), and National Unified USSD Platform (NUUP). In parallel, aggregators such as Itz Cash, Oxigen, PaySe, and m-Pesa have emerged to offer digital financial services to the poor.³

The advent of digital finance is causing a paradigm change in India's financial inclusion environment, with the ecosystem's obstacles shifting from readiness and capacity to daily use. First, low-income customers are less likely to embrace and use digital financial services because they lack access to smartphones, digital capabilities, and content. Second, since low-income customers can only interact online if their local network (e.g., the petty retailers with which they do business) is already digital, digital service providers must systematically build adoption infrastructure. The functional points where activities fail to converge (for example, a failure to connect Aadhaar and mobile numbers with bank accounts) will interrupt various financial processes must also be considered. Finally, with the introduction of emerging transaction networks, expanded mobile access to data, and a rising number of first-

¹Ozili, P. K. (2018). "Impact of digital finance on financial inclusion and stability". *Borsa Istanbul Review*, 18(4), 329-340.

²Park, C. Y., & Mercado, R. (2015). "Financial inclusion, poverty, and income inequality in developing Asia". *Asian Development Bank Economics Working Paper Series*.

³Rasheed, R., Siddiqui, S. H. & Chaudhry, I. S. (2019). "Development of SMEs with Provision of Islamic Finance in Emerging Economies: A Case of Pakistan". *Journal Zia-e-Tahqueeq*, 17, 35-51.



generation digital financial service consumers whose safety and privacy issues must be answered, data protection and customer redress processes remain of primary importance.⁴

By strengthening these elements, the ecosystem would be able to attract more consumers while still allowing consumers to transact at a higher level. Financial service providers will be able to leverage more accurate data from low-income households' broader digital footprints to discern trends in payments, investments, credit, and insurance if these issues are addressed simultaneously. As a result of these trends, financial products tailored to highly varied, unique segments of society may be designed. While initiatives are ongoing to leverage low-income consumers' digital financial data for their benefit, due to a lack of data, these efforts are yet to be scaled up beyond urban financially integrated individuals.⁵

Financial Inclusion and G2P

Different types of digital or electronic G2P payments exist. Direct deposits into bank accounts, payments to virtual pre-paid or stored-value cards, and mobile money transfers, which can or may not be connected to a mobile money account, are all examples. Recipients can access funds from an automated teller machine (ATM), point-of-sale (POS) terminals, banking or mobile money agents, or other methods, depending on the form of digital payment. Since their digital payments system is underdeveloped or has poor penetration in non-urban areas, many governments also allow G2P transfers mostly in cash or paper-based types.⁶ In several countries, however, technological advancements and financial business models such as mobile money service accounts and agent banking (which use mobile and/or Internet connectivity to offer real-time financial services) are widening the scope of the electronic payments system.⁷

As a result, digitizing purchases is becoming more feasible. When it comes to digitizing payments in an economy, governments play a critical role. Governments should set a precedent and play a catalytic function in the development of a digital payments platform and environment in which all types of payments—including private-sector salaries, payments for the selling of farm products, energy bills, school fees, remittances, and daily purchases—are made online. Governments must also play a key role in facilitating the transition to digital payments outside government payments by building an encouraging regulatory framework and fostering consumer health and education.⁸ We study the body of literature on digital G2P payments in this paper and recommend measures that policymakers should take to accelerate the adoption of digital payments. The second segment looks at how shifting government salaries and social transfer transfers from cash to deposits benefits all states and recipients.⁹

Lowering rates, improving delivery speed, increasing openness, improving stability, increasing financial equality, and increasing women's economic empowerment are just a few of the possible benefits of switching to digital payments. The third segment examines the problems that countries around the world face when they attempt to transition from cash to electronic payments, as well as the part that policymakers should play in fostering a digital payments ecosystem.¹⁰ Putting in place a solid digital payment system necessitates a considerable amount of physical infrastructure. The literature also indicates that the human aspect must be considered: potential digital payment consumers must be trained about how to safely withdraw and transfer money, as well as the advantages and risks of other financial services they might be provided (such as credit and insurance). Receivers of electronic payments will cancel their payments, save the money, and transact in cash until they can access the services comfortably and have faith that financial service providers can be trusted, thus missing the future benefits of financial inclusion.¹¹

Shifting to digital G2P payments has a number of possible advantages for both senders (governments) and recipients (individuals): it can increase payment reliability by lowering the cost of disbursing and accepting payments and increasing payment

⁴Thomas, H., Hedrick-Wong, Y., Thomas, H., & Hedrick-Wong, Y. (2019). What is "Financial Inclusion"? Inclusive Growth. Published Online, 13-26.

⁵Scott, 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.

⁶Batista, C., and P. Vicente. 2013. "Introducing Mobile Money in Rural Mozambique: Evidence from a Field Experiment." Nova Africa Center for Business and Economic Development Working Paper Series.

⁷Allen, F., A. Demirguç, L. Klapper, and S. MartinezPeria. 2016. "The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts." *Journal of Financial Intermediation* 27 (July): 1-30.

⁸Beck, T. 2015. "Microfinance – A Critical Literature Survey." World Bank Independent Evaluation Group Working Paper 2015/4, Washington, DC

⁹Bold, C., D. Porteous, and S. Rotman. 2012. "Social Cash Transfers and Financial Inclusion: Evidence from Four Countries." Consultative Group to Assist the Poor, Focus Note 77/2012.

¹⁰Cull, R., T. Ehrbeck, and N. Holle. 2014. "Financial Inclusion and Development: Recent Impact Evidence." Consultative Group to Assist the Poor, Focus Note 9/2014

¹¹Demirguç, A., L. Klapper, D. Singer, and P. Van Oudheusden. 2015. "The Global Findex Database 2014: Measuring Financial Inclusion Around the World." Policy Research Working Paper 7255, World Bank, Washington, DC



speed. Payments can become more transparent as a result of digitalization, reducing the risk of leakage between sender and receiver. Furthermore, digitalization will improve payment protection and, as a result, reduce the rate of related crime. Making the switch to digital payments will also serve as a crucial first step into the formal financial system. Shifting to digital payments will also help women gain economic freedom by increasing the anonymity of payments and giving them greater leverage over the funds they collect.¹²

In the long run, switching from cash to digital payments will save you a lot of money. When contemplating large-scale transfers by the government to individuals, such as government wages or social transfer payments, the possible cost savings are particularly striking. The variable cost of managing social transfers is 20% smaller by mobile transfer than by manual cash delivery, according to a comprehensive study of a social transfer scheme in Niger. Unlike cash payments, which fly at the speed of the courier, wireless G2P payments can be sent and received almost instantly, regardless of whether the sender and recipient are in the same town or district. Government aid payments in times of emergency will be rendered instantly in digital form when the need is highest.¹³ Following the earthquake in Haiti in 2010, a study of many NGO projects showed that mobile money transfers were quicker and safer than conventional physical cash distribution or voucher programs.¹⁴

Digitizing G2P payments can also increase transparency and ensure that people receive wage or social transfer payments in full—and that only those eligible to receive payments do so. Given the fungibility and transactional anonymity of cash, cash payments are subject to “leakage” (payments that do not reach the recipient in full) and “ghost” (fake) recipients, particularly in the context of government transfers. By moving toward digital G2P payments, the traceability of the payment process is improved. First, recipients have digital records of the amount of the payments they are to receive, and the number of potential leakage points is lessened by reducing the number of people a payment needs to go through to reach the recipient. Second, digital payments generally require more stringent identification documentation of recipients to comply with documentation requirements for financial service providers, making it harder for ghost recipients to remain undetected.¹⁵

Recipients of G2P payments in cash often not only have to travel considerable distances to receive their payments, but are also particularly vulnerable to street crime once they carry the cash due to its transactional anonymity. While security is a concern when traveling with any large amount of cash, this concern is especially salient for regular cash payments, such as wage or social transfer payments that are received at publicly known points in time. Evidence from the United States shows that when the federal government introduced the Electronic Benefit Transfer (EBT) in the mid-1990s, and thus switched from delivering social cash transfers by paper checks, which needed to be cashed, to electronic debit cards, the overall crime rate over the next 20 years was reduced by almost 10 percent as a direct result. This corresponded to 47 fewer crimes per 100,000 people per county per month as a direct result of switching welfare benefits from cash to credit.¹⁶

Digital Economy and Financial Inclusion

Financial Inclusion is a relatively recent financial concept in every country that aims to shift this paradigm by providing money-related administrations at fair costs to the oppressed, who may not be aware of or prepared to handle the costs. Global trends have shown that, in order to achieve comprehensive growth and change, the expansion of financial services to all sectors of society is critical.¹⁷ When all is said and done, financial is a procedure for ensuring access to appropriate money-related products and administrations needed by all segments of the general public, especially powerless groups, at a reasonable cost in a reasonable and clear manner by controlled traditional institutional players. The aim of money-related concern is to improve the lives of helpless people, especially the vulnerable, by providing them with access to a bank account and the ability to earn a steady income. In reality, contrary to popular belief, every country may claim to be a leader in financial inclusion.¹⁸

Given the pace of innovative transition in the modern global era, which is often referred to as the “sharing economy,” it's worthwhile to familiarize yourself with the importance of information management. A shared economy, for the most part, brings

¹² Duflo, E. 2012. “Women Empowerment and Economic Development.” *Journal of Economic Literature* 50 (4): 1051–79.

¹³ Masino, S., and M. Nino-Zaraz ~ ua. 2014. “Social Service Delivery and Access to Financial Innovation.” UNWIDER Working Paper 2014/034.

¹⁴ Kendall, J., and R. Voothies. 2014. “The Mobile-Finance Revolution: How Cell Phones Can Spur Development.” *Foreign Affairs* 93(2): 9–13.

¹⁵ World Bank. 2012b. *General Guidelines for the Development of Government Payment Programs*. Washington, DC: World Bank.

¹⁶ Muralidharan, K., P. Niehaus, and S. Sukhtankar. 2014. “Payments Infrastructure and the Performance of Public Programs: Evidence from Biometric Smartcards in India.” National Bureau of Economic Research. NBER Working Paper 1999.

¹⁷ Chu, Albert (2017). Mobile technology and financial inclusion. In David lee; Kuo Chen; and Robert H Deng (eds): *Handbook of Blockchain, Digital Finance, and Inclusion*. Elsevier. Vol. 1. Chapter 6. pp. 131–144

¹⁸ Chen, Le; Alan Mislove; and Christo Wilson (2015). Peeking Beneath the Hood of Uber. *IMC'15: Proceedings of the ACM Internet Measurement Conference*, Tokyo, Japan, 28–30 October 2015. New York: ACM Press, pp. 495–508.



individuals, organisations, states, and approach developers together to exchange data and properties, resulting in a system impact and effect that increases transparency and incentives for all involved. To a large number of us, "sharing properties" is evolving, will expand, and flourish in the far future as yet another traditional and "another typical" concept. The digital economy is exploding all over the world. It is one of the most important factors influencing growth, strength, and progress. The advancement and selection of computerized advances and plans of action would allow companies to achieve greater size, penetrate new markets more rapidly, and better comprehend their customers.¹⁹

Financial inclusion refers to efforts to make financial services and goods accessible and affordable to both individuals and organisations, regardless of their total assets or company size. Financial inclusion aims to remove the barriers that prevent people from participating in the financial sector and using these services to better their lives. It's also known as all-encompassing money. In order to increase financial inclusion, real progress must be made in the following areas:

- (1) Payment infrastructure is now faster: Technology now allows for the improvement of payment infrastructure. The importance and benefits of a faster installment basis in lowering barriers and lowering costs for financial inclusion are critical.
- (2) Disbursements of G2P (Digitizing government-to-person): The government's push to link direct transfers and other sponsorships to the national identifiable evidence system has made significant progress in bringing the vulnerable into the digital realm.
- (3) Biometrics and Identity: Biometrics and Identification: Advances in the use of national identification proof cards, which aid biometrics and promote know-client consistency, as well as others that reduce risks and support value-based verification at lower prices.
- (4) Crowd funding is also another innovation that will help small to medium-sized businesses that are having trouble obtaining loans from banks. These players are more adaptable and use opt-in knowledge to provide market visionaries with access to capital.
- (5) Partnership and coordination with emerging models: On the supply side, pay attention to how actors joining the computerized economy are developing new models and cooperating in ways that take advantage of each other's strengths and expertise.
- (6) Virtual currency: The use of digital money by registered e-cash guarantors will increase people's ability to send and receive properties as well as become financially involved.
- (7) Big data analytics: Technology has enabled study of the massive amounts of data now available from computerized channels, often referred to as "big data" research. This opens up the possibility of lowering consumer management costs. A few private-sector actors have started to use massive data for credit and security, as this lowers the costs of providing these services, especially for low-pay customers.
- (8) Consumer frameworks: Consumer models that deal for people who were formerly denied access to money have shown to be the most effective way to overcome some of the barriers to incorporation.
- (9) E-commerce: In collaboration with banks, electronic trading companies are pushing budgetary integration in novel ways. Alibaba in the People's Republic of China and Lazada in Southeast Asia are enabling a large number of customers to gain access to credit as well as more extensive computerized comprehensive financial opportunities.
- (10)Blockchain techniques: The use of Blockchain advancements often demonstrates the potential to aid money-related consideration, especially in the areas of widespread character ownership, support for interoperable flexible installments base, exchange fund, land titling, and property obligation.²⁰

While we increasingly see this as guiding business across business sectors based on the internet and the World Wide Web, the term "digital economy" refers to an economy that relies on digital figuring technologies. The advanced economy is also known as the Internet Economy, New Economy, or Web Economy in some situations. If the advanced economy becomes more entwined with the traditional economy, it becomes more difficult to distinguish between the two. Three main elements of digital economy are:

1. e-commerce
2. e-business
3. Infrastructure of e business

¹⁹Braun, Virginia; Victoria Clarke; Nikki Hayfield; and Gareth Terry (2012). Thematic Analysis. In Harris Cooper (ed.): APA Handbook of Research Methods. American Psychological Association, pp. 843–860.

²⁰Bederson, Benjamin; and Alexander Quinn (2011). Web workers unite! Addressing challenges of online labourers. In B. Begole and W. Kellogg (eds.): CHI'11 Extended Abstracts on Human Factors in Computing Systems, Vancouver, Canada, 7–12 May 2011. New York: ACM Press, pp. 97–106.



The digital economy has given birth to a slew of emerging trends and business ideas. The computerized environment is home to the bulk of the world's most powerful companies (Microsoft, Google, Amazon, and Apple). Allow us to take a look at some of the most important advantages of the digital economy.²¹

Conclusion

Digitizing G2P payments has the ability to lower rates, improve quality and accountability, and make recipients get more comfortable with digital payments. This is not without its difficulties, and it may necessitate substantial upfront expenditures in physical payment systems and customer education. Digital payments, on the other hand, allow anonymous and convenient financial services, which can be particularly valuable for women when protected by an effective financial customer security system. Migrating to electronic G2P payments allows for accelerated expansion of financial services and provides an on-ramp to financial inclusion, leading to the recipient's first account under her own name and under her management in several situations. The advanced and traditional economies are merging as a result of the approach of innovation and the process of globalization. Allow us to investigate the concept of a digital economy. The process of digital financial inclusion begins with the assumption that the unbanked and underserved populations have some kind of structured ledgers and need computerized access in order to complete basic budgetary transactions remotely.

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