Working Paper
An Inclusive Approach to Digital Payments Ecosystems:
Accelerating the Transition from Cash Requires an Ecosystem Approach
INTRODUCTION

The purpose of this working paper is to set out the key components and stakeholders in a digital payments ecosystem (DPE); to show how inclusive DPEs are vital in the transition from cash to digital payments; and to describe the key conditions for successfully building an inclusive DPE.

A digital payments ecosystem is achieved when all participants are connected in an electronic payments network based on shared and open standards, and is used by government, businesses and consumers to buy and sell physical and digital goods and services and make transfers. It enables its stakeholders to interact to the benefit of all, while simultaneously enabling its commercial participants to create economic value and deliver inclusive and responsible financial services to end users. While there are common elements to a DPE, each market context is different and, as a result, each digital payments ecosystem will have its own particular elements and set of stakeholders.

The transition from cash to digital payments is gathering momentum around the world as more countries, particularly in the developing world, commit themselves to making the shift. The Better Than Cash Alliance and other organizations supporting this transition are assisting the process through fieldwork and research supported by expert analysis.

Because the conditions prevailing in each country vary so widely across the world, there is still much to learn. This working paper reflects the best current insights into those factors that have the potential to support or hinder the transition to digital payments.

This paper was developed for Better Than Cash Alliance members and other audiences seeking to better understand DPEs. It aims to contribute to the knowledge about DPEs and their role in enabling digital payments as a means of reducing costs, improving transparency, increasing financial inclusion, and driving growth.

A RAPIDLY EVOLVING UNDERSTANDING OF DPE

The benefits of digital payments are clear: Digital payments reduce costs, increase transparency, boost domestic resource mobilization, and help eliminate theft and loss. Digital payments also create new economic opportunities, including the ability to participate in the formal economy and gain access to new markets. This in turn advances financial inclusion, empowers women, and helps to drive inclusive growth.

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1 The Journey Towards ‘Cash Lite’ – A report by Bankable Frontier Associates (BFA), commissioned by the Better Than Cash Alliance, that documents how accelerating the shift to digital payments can tackle poverty, save money, and increase transparency and financial inclusion, and women’s economic empowerment.

2 The Opportunities of Digitizing Payments – A report by the World Bank Development Research Group, the Better Than Cash Alliance, and the Bill & Melinda Gates Foundation, that sets out in detail how digital payments support the G20 goals of broad-based growth, financial inclusion, and women’s economic empowerment.


The Opportunities of Digitizing Payments (2014), a report by the World Bank Development Research Group, the Better Than Cash Alliance and the Bill & Melinda Gates Foundation.

Interoperability in Electronic Payments: Lessons and Opportunities (2013), a report by Glenbrook, commissioned by the Consultative Group to Assist the Poor (GCAP).

The Journey Towards ‘Cash Lite’ (2012), a report by Bankable Frontier Associates (BFA), commissioned by the Better Than Cash Alliance.

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2 This working paper takes a complex issue and attempts to explain it in accessible terms. If readers identify areas for improvement, please email at info@betterthancash.org.
The key challenge, particularly for emerging economies early in their transition to digital payments, is building an inclusive DPE that is able to reach scale in both use and acceptance. To this end, ecosystems must be developed in partnership with all key stakeholders in order to build widespread confidence in digital payments. A key objective is to reach a tipping point beyond which it is disadvantageous to remain outside of the digital payments ecosystem. From this point onwards, an ecosystem becomes self-sustaining.

Integration and interoperability are essential components of strong DPEs. Customers and businesses are less likely to adopt proprietary or closed solutions, and are significantly less likely to adopt multiple competing solutions that do not interoperate. Closed systems do not offer sufficient incentives to drive widespread behavioral change, and multiple duplicate payment processes are inherently inefficient. Collaborative development of inclusive ecosystems is vital.

THE GOAL: AN INCLUSIVE DIGITAL PAYMENTS ECOSYSTEM

An inclusive DPE is the totality of digital payment relationships between stakeholders, using one or more payments platforms that facilitate digital payments and support the transition away from cash. At the core of any robust and effective DPE is an enabling regulatory framework that promotes transparency and accessibility for all stakeholders. Rather than an array of segregated, closed systems, a strong DPE proactively engages all stakeholders, leveraging shared platforms and creating clear standards that are enforceable by practical redress mechanisms.

There is no single policy path that will work for every economy and national context. Each country has its own unique conditions that will influence which digitization initiatives are likely to be most effective. Even so, it is increasingly the case that progress depends on stakeholders working together to create common and accessible platforms, so that incentives align and private and public sector leaders can advance a common agenda. This creates the scale necessary for businesses and individuals to embrace digital payments, which in turn expands opportunities and markets. This may also help in delivering meaningful cost savings and greater revenues for governments.

In particular, existing financial system players and components, such as formal bank accounts, microfinance institutions, credit bureaus, card payment platforms, ATMs, agents, merchants, and payment networks must function in a cohesive manner. Transactions need to flow from payer to payee as swiftly as possible, at as low a cost as possible. DPEs should also be flexible and “future-proofed”, enabling them to connect to new technologies as they develop.

Key to the process of building a genuinely inclusive DPE is a shared understanding on the part of all stakeholders that they can jointly enjoy these benefits at scale. Citizens and consumers must also be able to initiate their own payments, and better utilize the payments made to them. To achieve this, there will need to be an adequate infrastructure in place to conveniently make and receive payments, to link these payments to accounts whenever possible, as well as to other financial services. In addition, to drive use and build confidence in such system, it is essential that they are well-designed and easy to use, as well as supported by some public and consumer education. Furthermore, mechanisms to protect consumers need to be in place, particularly ways to clarify questions and resolve problems or seek recourse.
KEY STAKEHOLDERS IN A DIGITAL PAYMENTS ECOSYSTEM
AND THEIR ROLES

Governments:
- As regulator, define and enforce appropriate regulatory frameworks (for example, in relation to electronic currency, electronic signatures, limited accounts); oversee the stability of digital payment platforms.
- As payer, digitally distribute grants and subsidies; pay salaries and pensions.
- As payee, digitally accept payments for licensing, taxation, and other payments.

Regulated Financial Service Providers:
- Financial service providers issue accounts; manage conversion of digital and physical funds; effect settlement; market and package digital services; provide and manage digital access through owned agent networks.
- MNOs and Mobile Money Providers communicate digital transactions between mobile devices; market digital products; provide agent networks; may also act as financial services providers.

Merchants:
- Offer goods and services in exchange for digital funds; ensure liquidity; provide broad access (may be financial institution-led in certain markets), provide cash in/cash out services.

Agent Networks3:
- Offer cash in/cash out services; provide other related services in exchange for digital funds (e.g. air time).

Payment Companies:
- Process, authorize and settle digital transactions between entities.
- Establish core payments infrastructure.

Large Payers/Payees4:
- Issue/accept digital payments whether in exchange for goods or services or as benefits payments.

Individuals and Households:
- Make and receive payments for goods and services.
- Receive payments as beneficiaries.
- Send and receive remittances or transfers.

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3 Includes mobile money agents, business correspondent networks, aggregators, third-party agent training and channel management.
4 Includes large donors such as the World Food Programme and Mercy Corps, utilities providers.
Creating the Conditions for Success

Collaboration is the key to establishing a thriving, inclusive DPE. However, many stakeholders are unaccustomed to collaborating at this scale, and, in developing economies in particular, infrastructure and regulation often need significant reform. As a result, a neutral and independent entity, without any actual or perceived vested interests, will be best-placed to catalyze the successful development of the overall ecosystem, so that its benefits flow to all users and the broader community. In addition, by proactively engaging with the range of stakeholders, governments are in a better position to prioritize and implement policies within and among key stakeholders to improve the ecosystem. This can give the private sector a stake in defining the system and incentives, not just to participate, but more importantly, to collaborate to compete.

Conditions for establishing a successful inclusive DPE:

1. The interests of multiple stakeholders must be aligned toward a common goal
Reaching scale requires broad partnerships across sectors to establish and refine a DPE. Without a clear alignment of interests, stakeholders too often see each other as competitors, rather than potential partners, leading to piecemeal efforts and multiple competing platforms.

2. Clear and effective regulatory standards are essential
To achieve an inclusive DPE, the regulatory environment must enable all players to operate in a fair, transparent and responsible manner. Governments should set clear guidelines and regulations, with proportionate risk-based Know Your Customer/Anti-Money Laundering (KYC/AML) rules, flexible agent requirements, and easily accessible and enforceable consumer protections.

3. Governments must lead, but cannot drive the transition alone
Digitizing Government-to-Person (G2P) payments, such as pensions, social welfare benefits, and salaries is a key driver of adoption and usage of digital payments. The large quantity and scale of these payments provide access to a large number of end users, and deliver key learnings that help expand payment systems to other users. Governments are well positioned to engage other players in developing cost-effective payment solutions for G2P payments, particularly solutions that educate and incentivize consumers, as well as joint public-private business models.

4. A consistent user experience across channels and devices supports a successful transition
Inclusive DPEs should be both channel- and device-agnostic. Providing a wide range of products and services that work within the ecosystem enables users to choose the best channel to meet their needs. Providing a consistent user experience across devices and channels has a positive impact on user uptake. By using common platforms, corporate players can compete by offering differentiated products and services while still cooperating to achieve broader goals.

5. Creating a network effect helps accelerate the transition
By developing platforms and standards that are open and accessible to everyone who wants to use them, policymakers and other stakeholders can increase the potential value of a DPE for all participants, lower costs, increase awareness and confidence in digital payments, and boost levels of adoption. This creates a network effect, where the value of the system for each user increases exponentially as adoption and acceptance grow. As participants recognize that value, they create a steadily increasing flow of activity that supports continued expansion of the system.

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1. There are various initiatives such as the Level One Project, funded by the Bill & Melinda Gates Foundation, working to leverage digital payments technology and mobile technology to help build inclusive DPEs. Similarly, USAID and other public sector entities are seeking to drive digital innovations in bulk payments as a means of using digitization to boost financial inclusion.
Lower Income Consumers
Agents
Small Payees (Merchants, Schools, Clinics)

Higher Income Consumers
Large Payees (Merchants, Utilities, Hospitals)
Large Payers (Governments, NGOs, Employers)

DIGITAL FINANCIAL SERVICES PROVIDERS
Account Opening Service
Consumer Account Management
Interoperability Service for Transfers
Fraud and Risk Mgmt. Service (FRMS)
Agent and Merchant Account Management

NATIONAL DIGITAL FINANCIAL SERVICES PROVIDERS
Account Opening Service
Consumer Account Management

DIGITAL FINANCIAL SERVICES PROVIDERS
Account Opening Service
Consumer Account Management

The Bill and Melinda Gates Foundation - Level One Project
Regulation,
supervision and
standard setting

Infrastructure

Financial services

Competition,
consumer protection and empowerment (links to education),
data privacy and security

Central banks and other
sectoral regulator and supervisors

International and regional
organizations working on
regulatory, supervisory and
standardization issues

1

2

3

1 Regulation, supervision and standard setting

2 Infrastructure

3 Financial services

1 ICT, energy, transport

2 Interaction:
- cash-in, cash-out
- payroll, pension
- remittances, taxes

3 Banking (deposits, savings, payments, credit, investments, ...)
- insurance and securities
- (from any provider: financial institutions,
post, Telco, agents, ...)

International and regional
organizations working on
regulatory, supervisory and
standardization issues

Central banks and other
sectoral regulator and supervisors

International and regional
organizations working on
regulatory, supervisory and
standardization issues

3 Financial services

Interaction:
- cash-in, cash-out
- payroll, pension
- remittances, taxes

INFRASTRUCTURE

REGULATION, SUPERVISION AND STANDARD SETTING

FINANCIAL SERVICES
GSMA - Mobile Money for the Unbanked (MMU)

DIGITAL FINANCIAL SERVICES ECOSYSTEM

E-COMMERCE
Online payments

MFIS, MICROINSURANCE
Loan disbursements & repayments

GOVERNMENT
Tax collection, License payments Pension, salary & subsidies

PHYSICAL RETAIL
Supplier payments Merchant payments

EMPLOYERS
Salary & other disbursements

TRANSPORTATION
Payment & ticketing

EDUCATION
Registration & fees payments

HEALTH
Bill payments

AGRICULTURE
Output payment & subsidies Loan repayments

WATER & ENERGY SERVICES
Bill payments

GOVERNMENT
Tax collection, License payments Pension, salary & subsidies

NGOs
Aid disbursements

MGIS
Loan disbursements & repayments

E-COMMERCE
Online payments

PHYSICAL RETAIL
Supplier payments Merchant payments

EMPLOYERS
Salary & other disbursements

TRANSPORTATION
Payment & ticketing

EDUCATION
Registration & fees payments

HEALTH
Bill payments

AGRICULTURE
Output payment & subsidies Loan repayments

WATER & ENERGY SERVICES
Bill payments

GOVERNMENT
Tax collection, License payments Pension, salary & subsidies

NGOs
Aid disbursements
The Better Than Cash Alliance is a partnership of governments, companies and international organizations that accelerates the transition from cash to digital payments in order to reduce poverty and drive inclusive growth. We work with our members to craft solutions tailored to each country’s context and culture. For more information on how to join the Alliance and connect with key stakeholders in your country, please visit www.betterthancash.org or email us at info@betterthancash.org.