

Global landscaping study on digitizing P2G payments

June 2016

Executive summary (1/2)

Person-to-government (P2G) payments represent ~USD 8 trillion globally and ~USD 375 billion in developing countries. The value proposition for digitizing these payments is compelling:

- **For governments:** lower costs, reduced leakages, faster service provision, and even greater transparency and accountability
- **For financial service providers:** greater returns through increased reach, and expansion to new business lines and models
- **For consumers:** faster, cheaper, more convenient, and more transparent government services...and a potential path to financial inclusion through new and user-friendly digital accounts

This is the first comprehensive study on digitizing P2G payments, and seeks to answer two questions:

- I. *“Can digitizing P2G payments help drive the financial inclusion of poor consumers?”*
- II. *“How can governments set up efficient, sustainable, and inclusive payment systems for their services?”*

Executive summary (2/2)

We are optimistic about the potential of P2G payments, because:

- Governments are **increasingly prioritizing P2G payments** as part of a holistic and strategic approach to digitization and **realizing the benefits of digitization.**
- **Some initiatives are showing initial signs of success.**
- **Countries are simultaneously investing in improving their broader digital payments ecosystem.**

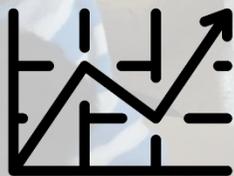
However, digital P2G payments should not be seen as a magic bullet for financial inclusion. A number of barriers prevent adoption today: among others, limited product relevance, a need to digitize the entire process—not just payment, and a fear of negative consequences if something goes wrong. These issues indicate that **leading a digital payments agenda through P2G alone is likely a challenging proposition.**

Four critical factors can help determine whether a country is ready to launch digital P2G solutions: (i) strong levels of buy-in from within the government and across business partners; (ii) reliable infrastructure; (iii) an enabling policy-environment; and (iv) indications of consumer-readiness.

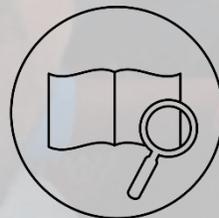
We will be on the lookout for new initiatives, greater adoption, and demonstrations of financial inclusion impact over the next 3-5 years to see if digitizing P2G payments fulfils its initial promise.

This study was intended to show why—and how—to digitize P2G payments

Our research methodology



Sizing of the market
for P2G payments



Deep-dive analysis
of nine initiatives



Global scan of 60+
digital P2G initiatives



In-country research in India,
the Philippines and Rwanda

85+ interviews with
government officials, donors,
financial institutions, MNOs,
technology providers and
payment experts

Conversations with **90+
users and non-users**
through one-on-one
interviews and FGDs

The promise of digitizing P2G payments

What is a person-to-government (P2G) payment?

A person-to-government payment is a payment made by an individual to a government agency or public sector organization.

P2G payments involve a payer, a payee, a payment type and a payment method:



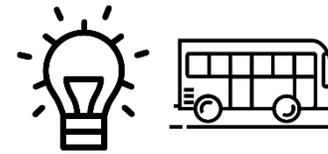
Payer

The individual from whose account the payment is being made to the government, (e.g., a citizen or resident)



Payee

The government agency which is being paid through the transaction (e.g., a national tax authority, a local city government)



Payment type

The service / fine / fee for which the payer is making a payment (e.g., public transport fees, income taxes, passport fees)



Payment method

The combination of *channel*, *instrument*, and *store of value* through which the payer makes the payment to the payee

Source: Definition co-developed by Karandaaz, CGAP and Dalberg; icons from the Noun Project

What is a digital person-to-government (P2G) payment?

Digital P2G payment: the transfer of funds **directly from an account of an individual or business** to an account of the government, making use of a **digital payment method**.¹

Two key differences from the traditional definition:

- (1) The individual must hold and use his / her own account to make the payment
- (2) The payment must be **digital end-to-end**, i.e. use a digital channel, instrument **AND** store of value:
 - **Digital channels:** e.g., mobile phones, PCs / laptops / tablets, POS terminals or machines, ATMs, digital kiosks, and--in selected cases--bank branches
 - **Digital instruments:** e.g., cards (credit / debit / ATM) and electronic fund transfers
 - **Digital stores of value:** e.g., bank account, electronic money/stored value account or prepaid account

These differences are important because they are in service of important financial inclusion goals: (i) opening of customer accounts and (ii) usage of those accounts

Source: Definition co-developed by Karandaaz, CGAP and Dalberg

¹ By business, we mean micro-enterprises, i.e., businesses with less than 10 employees, as they can also benefit from digital P2G payments from a financial inclusion perspective

How do they work?

In most cases—but not all—the customer needs to self-initiate the transaction digitally

Consumer self-initiates the transaction

E.g., over a mobile-phone, on a computer, at an ATM, using his or her own account



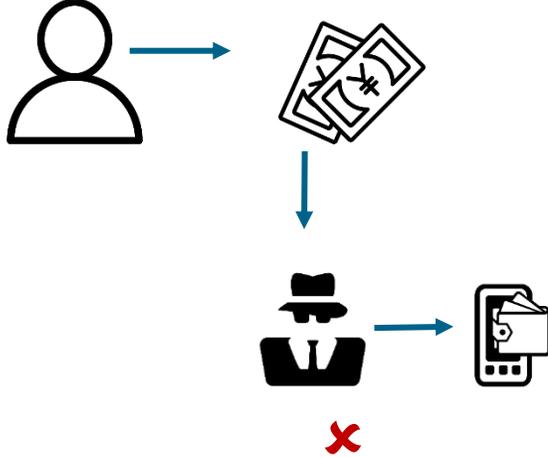
Agent assists the customer AND uses customer's account

E.g., a mobile money agent helps a customer make a utility payment; a bank agent helps a customer make an RTGS transfer



Consumer pays the agent in cash; agent makes a digital payment using his / her account

E.g., a customer gives an agent cash; the agent's mobile money account is deducted for the payment



Agent-assisted transactions from a consumer's account are considered digital, because they help achieve the objective of driving consumer usage of accounts

Qualifies as digital P2G

The promise of digitizing P2G payments

P2G payments in emerging markets represent an estimated USD 375 billion dollar opportunity for digitization



USD 7.7
trillion



Global

< 20% of low and lower-middle income countries report that they receive payments for taxes primarily in digital form. This figure is 80% in high income countries.¹

USD 375
billion



Low & lower-middle
income countries

Source: Dalberg research and analysis, data from World Bank, Organization for Economic Co-operation and Development and Better Than Cash Alliance

¹Self-reported data from World Bank Payment Systems Survey (2012), which includes results from 31 high income countries, 24 upper-middle income countries, 21 lower-middle income countries and 10 low income countries.

The value proposition for digitizing these payments is compelling for governments, businesses and consumers alike



Governments

Savings in operational costs

- Costs of running collection centers
- Costs of handling cash

Increased revenues

- Greater number of users
- Fewer leakages

Increased efficiency to collect, track, and process payments

Increased effectiveness

- Increased accountability
- Ability to improve services and inform policy by analyzing data (e.g., analyzing trends in payments)
- Ability to advance financial inclusion objectives



Businesses

Strengthen existing business lines

- Attracting new customers
- Increasing the transaction volume and loyalty of existing customers
- Better understanding of customer base and optimization of business operations

Expand to new business lines

Explore new business models



Consumers

Time savings

- Reduced travel time
- Faster / shorter queues

Cost savings

- Transportation costs
- Opportunity cost / lost income due to time associated with making payment

Improved user experience

- Faster processing of payment
- Increased transparency
- Decreased corruption
- Products more directly tailored to meet consumer needs
- Pathway to financial inclusion

Some governments are starting to realize the benefits from digitization...

Reduced operational costs



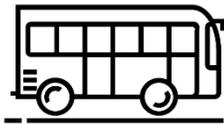
- Digitizing payments for passports has **reduced processing costs by > 50% in Pakistan**

Increased revenues



- In Tanzania, one year after launching a digital initiative for income and property taxes, **~15% of the tax base was paying via mobile money**, including those with no history of paying taxes—**suggesting reduced tax avoidance**

Increased efficiency



- Emerging evidence that **buses that are cashless have faster-moving routes** than those that still use cash (Rwanda)

Increased effectiveness

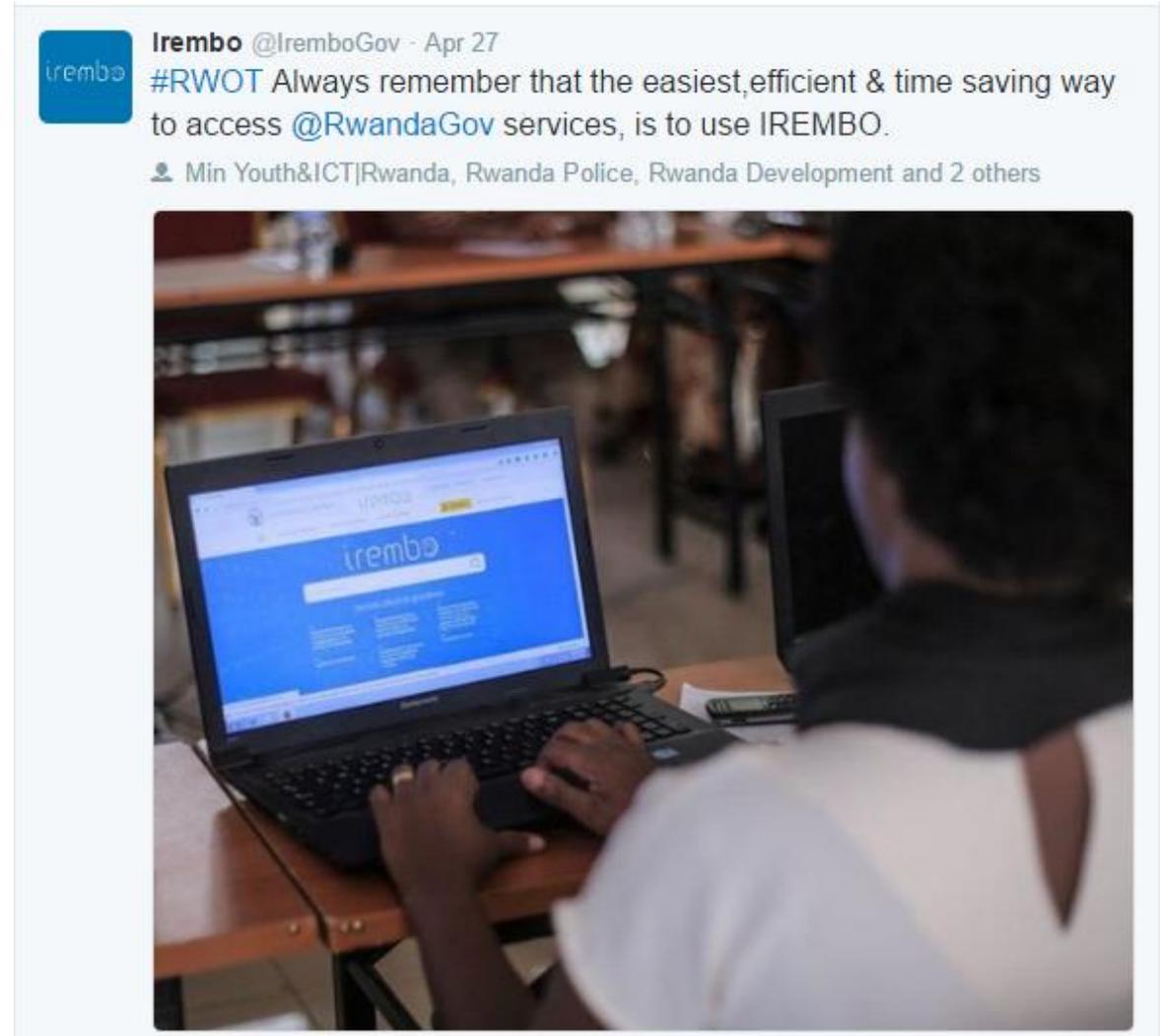


- Cote d'Ivoire's ministry of education is using a digitized student database (enabled through digital registrations) to **make policy-related decisions**

...businesses see a long-term opportunity in P2G payments...

IREMBO – Rwanda’s “one-stop shop” for government services

- **Long-term commitment:**
 - 25-year PPP between RwandaOnline Private Limited (ROPL) and the Government of Rwanda
 - ROPL responsible for building and operating IREMBO for first 25 years, transferred to the government thereafter
- **Sustainable business model:**
 - Government passes on up to 31% of fees paid by citizens to ROPL
- **Staged growth plans:**
 - ~30 services on the platform today
 - 100 more by 2018 and up to 800 by end of PPP



Source: Expert interviews

...and citizens can realize significant time and cost savings



Birth registration in Rwanda

	Process	Time	Direct costs (fees and transport)
Application / verification	<ul style="list-style-type: none"> • Visits to three different offices 	<ul style="list-style-type: none"> • 45 min – 180 min (15 min – 1 hour / office) 	<ul style="list-style-type: none"> • 0 – 600+ RWF in transport costs
Payment	<ul style="list-style-type: none"> • Fee payment • Stamp collection • Notification 	<ul style="list-style-type: none"> • 15-60 min • 15-60 min • 2 weeks 	<ul style="list-style-type: none"> • 500 RWF service fee • 0 – 200+ RWF in transport costs
Receipt of service	<ul style="list-style-type: none"> • Document collection 	<ul style="list-style-type: none"> • 15-60 min 	<ul style="list-style-type: none"> • 0-200+ RWF in transport costs
		Total costs: <ul style="list-style-type: none"> • 1.5 – 6 hour • 500 – 1,500+ RWF 	

Customers who use the IREMBO portal can save 50 min to 3.5 hours and 400 – 1,000 RWF in transport costs. The time saved can also be used in other ways: to earn additional income or for other activities.

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

There are some early signs that P2G payments can advance the financial inclusion agenda

Encouraging more users to open up a digital account



- **Pre-paid hospital cards in Tanzania serving as a gateway to digital payments.** 20% of 'TEMBO' cards in Tanzania are believed to be new to digital payment instruments

Encouraging regular and greater use of digital financial services



- Pension and insurance schemes linked to India's Jan Dhan Yojana (PMJDY) program—a national program to open bank accounts for the poor—have helped **reduce account dormancy to 26%**

Enhancing financial health



- In Uganda, mobile payment of water bills is **producing greater service reliability:**
 - Alerts and reminders prompt consumers to pay on time
 - Reduces disconnection time

Evidence on use of digital payments by the financially excluded, and their retention on digital platforms, is still needed

Source: Expert interviews; Dalberg research and analysis

Where could digital P2G payments lead? A look at examples from high-income countries suggests a shift to integrated e-governance solutions



One national website / portal which allows citizens and businesses to:

- Receive information about **hundreds** of government services at the national and local level
- Obtain, and in many cases, submit forms online
- Make relevant payments along with form submission (e.g., book a driver's exam, make an income tax payment, etc.)

Source: Expert interviews; Dalberg research and analysis

Today's setup and implementation challenges

The greatest challenge begins once the payment system is up and running: how to drive widespread adoption of the P2G digital solution

Setup challenges

- Obtaining approval from multiple government bodies can be an opaque and time consuming process.
- Government investments in systems often lack flexibility to expand for growth, or adapt to future trends
- Designing a sustainable business model is not a straightforward process

Consumer adoption challenges

- Digital payments aren't always more convenient than the cash alternative
- Deficiencies in the existing payment ecosystem are holding back wide-scale adoption of P2G solutions
- Current P2G solutions are beset by a number of technical, functional, design, and pricing challenges
- There is insufficient investment in driving consumer awareness

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

Setup challenge 1: Obtaining approval from multiple government bodies can be an opaque and time consuming process



Multiple approvals needed

- Multiple involved agencies need to sign-off
- Not always clear which bodies need to provide approvals
- Can even require changes to legislation



Leadership changes may hinder progress

- In the time needed to acquire approvals, supportive administrations can cycle out of power
- New leadership may not immediately see the value of digitizing



Potential political ramifications

- Administrators may be wary of potential job losses—and political consequences—related to closing down manual operations

Getting the necessary approvals can take, at minimum, months to acquire; as we found from our research, they can sometimes take years.

Setup challenge 2: Government investments in systems often lack flexibility to expand for growth, or adapt to future trends

Key investments needed



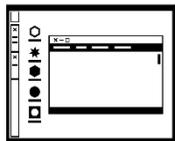
New servers (or upgrades to existing ones)



Firewalls to ensure data security



Integration with a front-end solution via an API



Software upgrades and ongoing maintenance

Common challenges

- Government agencies are often mandated by law to accept the lowest bid for IT project
- May not build solutions that take into account needs of other agencies (lost opportunity to share infrastructure—and costs)
- Insufficient internal technical capacity to inform design decisions
- Limited budgets available

Source: Expert interviews; Dalberg research and analysis

Setup challenge 3: Designing a sustainable business is not a straightforward process

Uncertainty around who should pay

- Citizens typically don't want to pay, given they perceive P2G as a public good
- Governments often:
 - Can't legally pay convenience fees **OR**
 - Do not want to pay added fees or pass them onto the customer
- Companies—unsurprisingly—need to be appropriately compensated



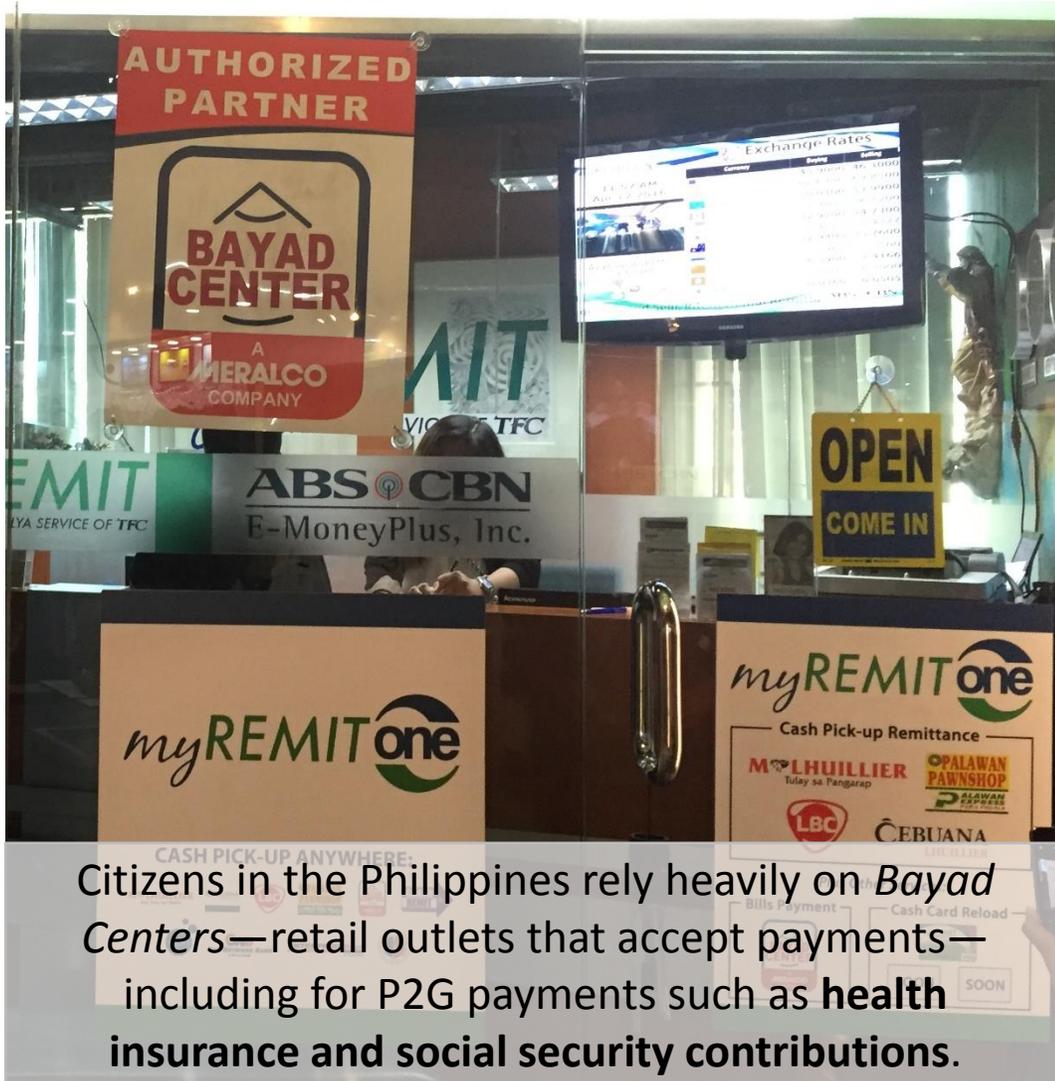
Our research uncovered multiple approaches:

- **Governments:** In Cote d'Ivoire, the government pays MTN USD 0.08 for every school fee transaction processed
- **Consumers:** In India, citizens are charged USD 0.07 as a convenience fee for using Mobile One (for certain services)
- **Service providers:** In the Philippines, Globe is subsidizing each transaction (USD 0.1 to USD 0.2), as they plan to build a base of consumers

In addition to answering the question of “who pays,” governments and companies need to tackle other questions including those around pricing, who receives payment and revenue sharing.

Source: Expert interviews; Dalberg research and analysis

Consumer adoption barrier 1: Digital payments aren't always more convenient than the cash alternative



Digital solutions have their own process challenges

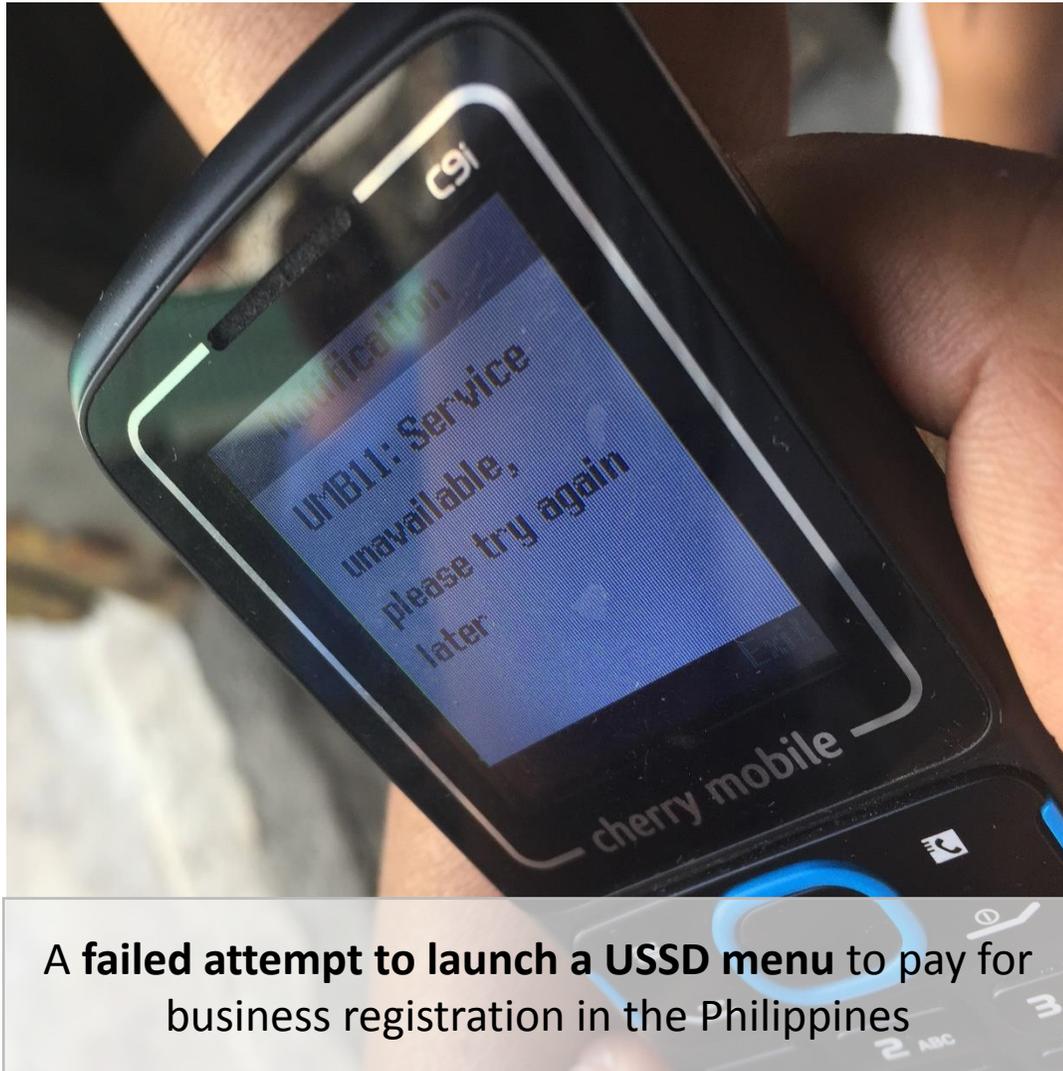
- **Don't solve the entire pain of making a transaction (!)** Today's solutions typically digitize the payment—but not the rest of the process
- **Still require cash-in—in other words, a physical trip**—if customers don't keep balances on their digital accounts

Traditional payments aren't always so painful

- **“Workaround” solutions** (e.g., fixers who make payments on behalf of a customer in the Philippines)
- **Convenience of accessing alternate payment locations** often located close to a citizen's home
- Government officials sometimes **come to a citizen's home to collect payments or allow for late payment**

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

Consumer adoption barrier 2: Deficiencies in the existing payment ecosystem are holding back wide-scale adoption of P2G solutions



A failed attempt to launch a USSD menu to pay for business registration in the Philippines

Poor network signals & limited—or poor quality—broadband connectivity

- Result in slow menus, menus that do not load, dropped transactions, and uncertainty around whether the payment has been made or whether funds have been deducted when the payment hasn't gone through

Lack of interoperability

- Precludes large segments from accessing digital P2G services

Perceived—and real—threats around fraud and security combined with poor options for recourse

- A 2014 CGAP survey found that **85% of respondents were concerned about fraud and inadequate consumer recourse**

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

Consumer adoption barrier 3: Consumers are turned off by poor product performance and a lack of pricing transparency

Products don't work or are hard to use

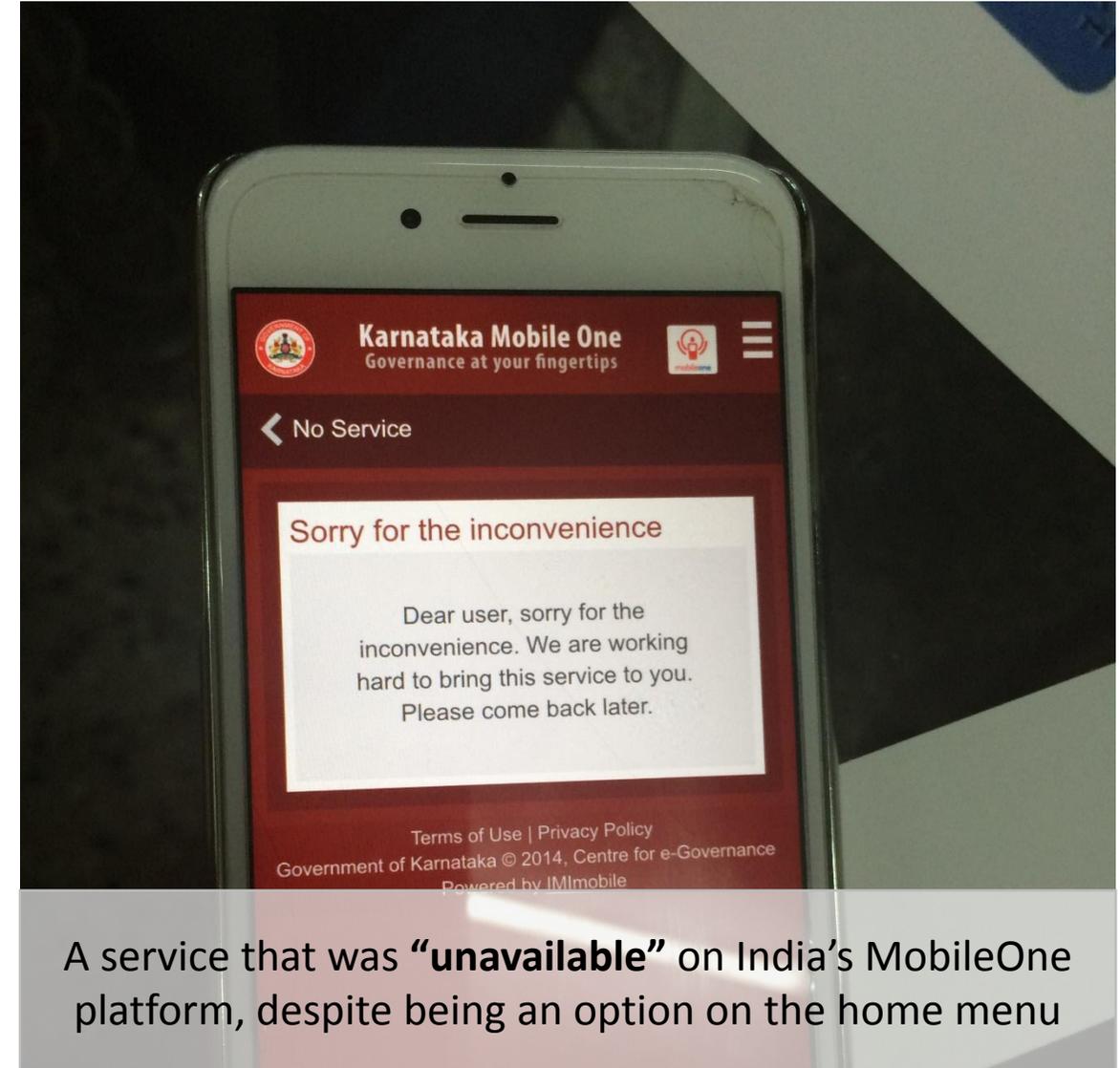
- Service unavailability
- Unwieldiness of USSD interfaces, especially on feature phones
- Challenging registration processes
- Need to remember multiple ID and account numbers

Discomfort around digital receipts

- Questions around whether digital receipts would be accepted by government officials
- Need for physical receipts for other services (e.g., tax receipts needed for loan applications)
- Uncertainty around storage of receipts on a mobile phone (e.g., lost SMS messages, storage capacity)

Uncertainty around product pricing and fees

- Lack of clear and transparent communication



A service that was “**unavailable**” on India’s MobileOne platform, despite being an option on the home menu

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

Consumer adoption barrier 4: There is insufficient investment in driving consumer awareness

Marketing and awareness not a priority

- Limited budget allocation
- Uncertainty around who should lead—and pay for—these efforts

Lack of consumer-level research

- Limited investment in consumer research to inform marketing, awareness and education approaches

Poor communication of the value proposition

- Cost of cash not clearly communicated



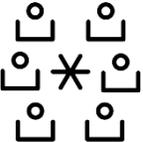
Poor timing of a marketing effort for mobile wallet-based tax payments in the Philippines. It was the last day for payment and customers were hesitant to pay digitally in case something went wrong.

Source: Expert interviews; consumer interviews and FGDs; Dalberg research and analysis

Designing for success: recommendations for key stakeholders

We believe that governments need to take a holistic, long-term approach toward developing P2G solutions

Four determinants of P2G-readiness

<p>High levels of stakeholder buy-in</p>		<ul style="list-style-type: none"> • Overt commitment across relevant agencies • Strong partnership (including a viable business model) between gov't and business partners
<p>Reliable infrastructure</p>		<ul style="list-style-type: none"> • Reliable connectivity • Strong back-end systems • Inclusive and consumer-friendly national payments architecture
<p>Supportive policy environment</p>		<ul style="list-style-type: none"> • Regulations that allow government agencies to accept digital payments • Regulations that protect the consumer • Flexibility and responsiveness to trends in digital finance
<p>Indications of citizen-readiness</p>		<ul style="list-style-type: none"> • Digitizing payments will solve consumer pain points • Other forms of digital payments gaining traction

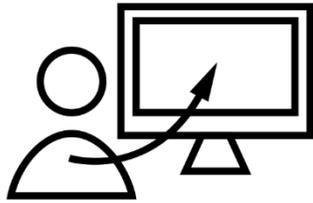
Source: Dalberg research and analysis; icons from the Noun Project

Developing robust systems and addressing underlying barriers to consumer adoption can help ensure long-term success

<p>Start simply and take a long-term view</p>	<ul style="list-style-type: none"> • Lead with a few promising services, and build to ensure that more can be easily integrated over time
<p>Integrate consumer adoption across all aspects of design and implementation</p>	<ul style="list-style-type: none"> • Ensure that UI / UX is consumer-friendly; build awareness and marketing plans into budget; consider co-funding business partners
<p>Focus on internal process design and training</p>	<ul style="list-style-type: none"> • Ensure that business processes are re-engineered early on and that relevant individuals (especially consumer-facing agents) across agencies are trained prior to initiative launch
<p>Consider phasing out—and, potentially, mandating—digital payments</p>	<ul style="list-style-type: none"> • Provide incentives for using digital payments • Make the use of cash-based options more challenging; potentially consider mandates (though this could potentially leave people behind)
<p>Prioritize ongoing learning and iteration</p>	<ul style="list-style-type: none"> • Build metrics around profitability, consumer adoption, financial inclusion, etc.; ensure regular measurement and course correction

The private sector has a critical role to play in driving initial product trial by providing upfront incentives to consumers

Design robust front-end solutions that take the need of the poor into account



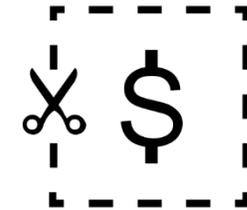
- Offer easy-to-use solutions
- Communications about transaction status (e.g., why a transaction has dropped)
- Incorporate new, relevant features (e.g., digital KYC)

Co-invest in agent training and consumer awareness alongside governments



- MNO agents understand and can clearly communicate value proposition
- Agents are incentivized to promote the shift from OTC to wallet-based / digital solutions

Offer incentives to attract and retain first-time users



- Upfront discounts
- Bulk purchase discounts (e.g., for transport)
- Other incentives (e.g., shorter lines, faster delivery of services)

Source: Dalberg research and analysis; icons from the Noun Project

More broadly, donors and multilateral institutions can offer critical technical assistance to governments...

Make the case for P2G



- Make the business case for P2G
- Selectively subsidize initial investment in P2G

Conduct country level diagnostics PRIOR to pilots



- Help determine country-readiness
- Identify areas for initial investment

Support countries in improving payment infrastructure



- Support policy agendas
- Offer technical assistance
- Share best practices

Source: Dalberg research and analysis; icons from the Noun Project

...while researchers and advocates can help improve our collective understanding of what works and what doesn't

- 1) **Invest in a common P2G database** to increase understanding of P2G flows
- 2) **Establish the extent of the common benefits between P2G and G2P;** in other words, test whether and how G2P and P2G can mutually reinforce the other
- 3) **Identify specific best practices for communicating the value proposition to customers**
- 4) **Advocate for policies and frameworks that ensure protection of consumer data and privacy**
- 5) **Conduct and disseminate best practices from country-level studies,** e.g., around successful business models, approaches to driving adoption, policy-level changes, etc.

In summary...

- Digitizing P2G payments can unlock value for governments, businesses and consumers—and even advance financial inclusion goals
- The sector is still in its early stages—the time to setup is long and driving adoption has been a challenge—but beginning to gain momentum
- Targeted investments in systems, policies, and consumer awareness, combined with improvements in the broader payments ecosystem, will enable long-term success

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THANK YOU!