



MOBILE PATH PAYMENTS

EFFICIENT SOCIAL SUPPORT THROUGH A NATIONAL MOBILE MONEY ECOSYSTEM

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There is an increasingly global consensus regarding the comparative merits of, and shift towards the adoption of electronic Government-to-Person (G2P) payments to replace cash. The emergence of the mobile phone as a low-cost, pervasive payments channel has fuelled this momentum. This study examines and presents considerations for the adoption of mobile G2P payments for the delivery of PATH benefits in Jamaica. Through the analysis of several country case studies and an examination of Jamaica's current economic landscape and policy imperatives, the study makes the case for the use of a PPP-model of engagement for implementing a mobile PATH payments system that could become the cornerstone of a robust national mobile payments ecosystem.

ACKNOWLEDGEMENT

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EXECUTIVE SUMMARY

BACKGROUND

The Government of Jamaica's Programme for Advancement through Health and Education (PATH) is an example of a Conditional Cash Transfer (CCT) program, which makes payments to eligible beneficiaries on the condition that recipients make investments in health and education. Currently PATH benefits are disbursed to over 375,000 beneficiaries using cheques (91%) distributed by the Ministry bi-monthly through the Post Office; and via magnetic Debit cards (9%) administered by the National Commercial Bank (NCB).

Several prior studies have determined that the operations of the current PATH payment system is time-consuming, physically and mentally exhausting and administratively costly for the Government, as well as the Bank through which checks are processed and reconciled. It also represents a less-than-satisfactory service delivery experience for many beneficiaries and often negatively impacts their self-esteem.

In 2011, a National Survey was conducted as part of a wider UWI-led study exploring the economic opportunity for the broad-based introduction of mobile financial services in Jamaica. A segment of this survey targeted beneficiaries under the PATH program, in order to determine the potential social and economic impact of using Mobile payments for the delivery of Government-to-person (G2P) Payments. Findings from this research and other benchmark country studies provided strong indicators that the implementation of mobile payments in the disbursement of PATH benefits could:

- Encourage economic efficiency by considerably reducing the cost per transaction and supporting the more productive use of time by participating agencies
- Provide a catalyst for increased financial inclusion in Jamaicans by lowering banking barriers
- Increase the range of financial services utilized by the un-/under-banked in Jamaica

A conservative financial evaluation, based solely on [the projected financial gains in operational efficiencies](#), demonstrated that the migration to electronic G2P is financially viable and could return significant operational cost savings to the GoJ.

These findings are consistent with an increasingly global consensus regarding the comparative merits of, and shift towards the adoption of electronic Government-to-Person (G2P) payments, which has gathered considerable momentum with several country cases undertaking the transition from cash to electronic payments in recent years. The emergence of the mobile phone as a low-cost, pervasive payments channel has provided significant impetus to this movement, largely fuelled by the enormous and highly visible success of national mobile payments systems in Kenya and the Philippines.

THE JAMAICA CONTEXT

Jamaica's current policy and economic landscape appears conducive to the adoption of electronic G2P payments. The GoJ's current IMF-led economic reform program, articulated through the Memorandum of Economic and Financial Policies (MEFP) framework, emphasizes: (1) Commitment to protecting the most socially vulnerable through programmes such as PATH; (2) Increasing operational efficiency of the public sector and social reform. Furthermore, the MEFP also recognizes the significant benefits of using **Public-Private Partnerships (PPPs)** for developing and upgrading physical infrastructure and service delivery, and positions "Catalytic and strategic private/public investments" as a key component of the Growth Agenda.

The most recent revision of the GoJ privatization policy instituted in 2012 emphasizes strong linkages to public sector reform and includes among its key precepts, an objective to: "maximise efficiency in the provision of public services by outsourcing them to private firms where this will deliver greater value for money than continued operation within the public sector". PPPs are also seen by the GoJ as a means of stimulating economic growth in the Jamaican economy, and are considered a key component of the PIOJ's Growth Inducement Strategy for the Short and Medium Term.

Conventional wisdom suggests that Jamaica exhibits many of the features that are conducive to a successful Mobile Financial System. In particular, access to a low-cost mobile payments system is expected to be a strong driver of financial inclusion, more efficient commerce and could be an enabler for business/ICT-sector innovation.

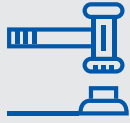
A detailed examination of the PPP Policy and Procedural framework issued by the DBJ, demonstrates unequivocally that implementing mobile G2P for PATH using the PPP model satisfies the majority of the desirable 'value drivers', and comfortably meets the screening criteria articulated for the Initial Screening stage of the PPP evaluation process. Furthermore the analysis demonstrated the availability of [Qualified Private Parties](#) that could become credible private partners for the adoption of a PPP model in mobile G2P for PATH payments.

Conventional wisdom suggests that Jamaica exhibits many of the features that are conducive to a successful Mobile Financial System. In particular, access to a low-cost mobile payments system is expected to be a strong driver of financial inclusion, more efficient commerce and could be an enabler for business/ICT-sector innovation. Notwithstanding these indicators, the pace towards the introduction of mobile financial services in Jamaica has been relatively cautious. In April 2013, the Bank of Jamaica (BOJ) issued "**Guidelines for Electronic Retail Payment Services**" which defined electronic payments as being anchored in the Banking infrastructure, and provided the operating parameters for providers of electronic retail payment services (including mobile payments). **The Banking Services Act, enacted in June, 2014** includes provisions for an Agent banking framework that enables commercial banks and other deposit taking institutions to use agents in the delivery of banking services.

Although several pilots and field testing of mobile financial services have been authorized and are being undertaken, as at the time of writing, there is no fully operational mobile payments system. However, one of the authorized "trials" most relevant to this study, is the Mobile Money for Microfinance (M3) Pilot Project being executed by the Development Bank of Jamaica (DBJ), which is seen as a means of significantly reducing the operating costs of loan disbursements and payment collections in the microfinance sector. This initiative, which sees the DBJ spearheading the delivery of a mobile payments infrastructure in collaboration with private sector partners as a means to facilitating operating efficiency and financial inclusion goals provides an important initiative and example of the potential for Government's role as a catalyst in financial inclusion. For Jamaica, where the small market size can lead to market failure, the role of the Government investing in a common interoperable infrastructure, both in terms of the platform and as an anchor client, can provide the necessary stimulus for the rapid scaling of the mobile financial services ecosystem.

CASE STUDIES AND LESSONS LEARNED

Several of the country cases examined through this study (Mexico, Kenya, Haiti and Brazil) have demonstrated that realizing the anticipated benefits of the transition to electronic G2P systems is by no means trivial, and requires strong, active multi-stakeholder engagement from both public and private sector actors with diverse but complementary skills and interests. Key lessons from a synthesis of the experiences of the multiple country cases studied include:



REGULATION AS THE STARTING POINT: The appropriate enabling Government legislation, regulation and a strong policy mandate is critical to driving the transition and diminishing resistance among the relevant stakeholders as was the case in Mexico where strict government directives included specific deliverables and timelines relating to the implementation of electronic payments.



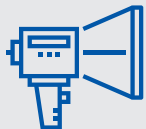
MARKET RESEARCH AND ASSESSMENT OF BENEFICIARY READINESS: A comprehensive feasibility study and diagnostic of the readiness of beneficiaries for mobile payments will help to fully assess the risks and inform the program approach and planning for mitigation activities. The challenges experienced in the Haiti case reflected flawed assumptions about the demographic attitude and needs of the target beneficiaries that was not validated by adequate research. Conversely, in Kenya, thorough market research accompanied by controlled pilots identified and was able to mitigate key program challenges faced by early movers.



ASSIGN KEY DRIVERS/RESPONSIBILITIES: Given diverse stakeholder perspectives and interests, a critical pre-requisite is the designation of key institutional and individual drivers that possess the requisite political and technical acumen. Having an institutional “champion” from within the government with (i) the vision to lead and drive the initiative; (ii) the hierarchy and authority to coordinate and oversee all participants; and (iii) the capacity to enforce accountability and ensure alignment is an imperative. Considerable political capital is required to garner support from other enabling agencies and private sector service providers, which will be needed to sustain the process, once inevitable challenges are encountered.



DEVELOP THE ELECTRONIC PAYMENTS ECOSYSTEM: A successful mobile G2P system should not be implemented in isolation, but rather as a component of a larger national electronic payment system. A solid agency network and the existence of adequate points of transactions where beneficiaries can use their cards or mobile devices in exchange for cash, goods or services are key pre-requisites and will be crucial to the success of the program.



EFFECTIVE AWARENESS AND EDUCATION CAMPAIGN: A strong emphasis and investment in promoting awareness and education of beneficiaries on the essence of electronic payments and subsequently, how to accept and use electronic payments is critical to effective adoption and acceptance. It may also be necessary to consider the use of incentives to encourage particular behaviours. Additionally, once the pre-implementation training has been executed, the addition of a contact center support mechanism through which recipients will be able to voice concerns may also prove beneficial.



ESTABLISHING KEY PARTNERSHIPS AND INSTITUTIONAL ALIGNMENT: A project of this nature will require multiple partners from both public and private sectors with diverse but complementary skills and interests. A key requirement is to identify solid partners with the interest to cooperate; the execution capacity and technical capabilities; the ability (or openness) to innovate; and adequate understanding of, and level of commitment to a financial inclusion agenda. Given the high-risk social and political profile and potential impact magnitude of electronic G2P initiatives, a sufficiently large and successful pilot is needed to secure the interest of policy-makers and other potential stakeholders. External funding can be a catalyst to expediting proof of concept and may be required to deliver the necessary evidence that the government should embrace an electronic G2P project initiative and be bring it to scale.

Notwithstanding commonly articulated benefits and the strong international consensus towards the comparative merits of, and shift towards electronic G2P systems, the cases discussed in this study demonstrate clear and present hazards that could mitigate or completely erode these anticipated benefits. However, there is increasing evidence that with these “best practice” guidelines and effective execution, the impact of electronic G2P on public sector operational efficiency, service delivery and ultimately the socioeconomic well-being of the beneficiaries themselves can be transformational.

A COMPELLING CASE

The pervasive penetration of mobile phones in Jamaica, including among PATH beneficiaries, and the existence of prospective private sector partners with the interest, technical capabilities, execution capacity, and demonstrated commitment to a corporate social responsibility agenda, provides highly conducive circumstances for undertaking such an initiative. There is strong resonance with Jamaica's current Public-Private Partnership policy and procedural framework which situates PPPs as a mechanism for public sector reform and stimulating economic growth in the Jamaican economy.

Effecting the transition from cash to electronic G2P payments for the PATH program is thus reasonably justifiable on its own merit. However there is a larger narrative that this study envisions and seeks to articulate. The transformational impact that the M-PESA mobile payments system had in Kenya is a social and economic phenomenon that is the envy of both the developing and the developed world. Jamaica currently exhibits many of the pre-conditions for realizing such a mobile payments revolution: [high mobile penetration](#); [a traditional banking infrastructure that provides limited access to low-cost, efficient and easily accessible payments channels for the majority \(85%\) of citizens](#); [an emerging mobile ICT innovation ecosystem that demands a readily accessible payments channel](#). The missing pieces compared with the equivalent M-PESA “[perfect storm](#)” are: adaptive and responsive Regulation and Scale. We believe the Government of Jamaica has a compelling opportunity to provide the stimulus for a robust and scalable mobile payments ecosystem by way of active policy and operational intervention. The adoption of a PPP-based mobile payments system for the delivery of PATH Benefits where the GoJ becomes an active partner and anchor client could become the cornerstone of a national payments ecosystem and stimulate the scale-up of mobile financial services in Jamaica, approximating the initial scale and demand effects that propelled M-PESA in Kenya. It is unlikely that any other pure market-led configuration could realize a similar outcome on its own.

I. BACKGROUND AND INTRODUCTION

In 2011, a National Survey was conducted to develop an evidence-based estimate and characterization of the “unbanked”¹ segment of the Jamaican populace. This was part of a wider UWI-led study exploring the economic opportunity for the broad-based introduction of mobile financial services in Jamaica. A segment of this survey targeted beneficiaries under the **Government of Jamaica’s (GoJ) PATH program**, in order to determine the potential social and economic impact of using mobile payments for the delivery of Government-to-person (G2P) Payments (Elliot, 2011).

PATH is an example of a Conditional Cash Transfer (CCT) program, which makes payments to eligible beneficiaries on the condition that recipients make investments in health and education. Currently PATH benefits are disbursed to over 375,000 beneficiaries using cheques (91%) distributed by the Ministry bi-monthly through the Post Office; and via magnetic Debit cards (9%) administered by the National Commercial Bank (NCB).

Findings from the national survey and other benchmark country studies provide strong indicators that the implementation of mobile payments in the disbursement of PATH benefits will:



Encourage economic efficiency by considerably reducing the cost per transaction and supporting the more productive use of time by participating agencies



Provide a catalyst for increased financial inclusion in Jamaicans by lowering banking barriers



Increase the range of financial services utilized by the un-/under-banked in Jamaica

The Elliot report (*ibid.*) estimates a significant reduction for the PATH mobile delivery cost per payment transaction, compared with the current check disbursement method, representing considerable projected operational savings annually (*See Appendix I for a summary*). For potential financial and mobile service providers, use of the mobile channel for the delivery of PATH benefits also represents a significant opportunity for diversification and increasing the bank’s customer base and product offerings by extending its reach to traditionally unbanked consumers.

Subsequent Focus Group studies conducted by MSBM with PATH Beneficiaries² reinforced the potential impact of such an initiative. Many of the participants viewed the current process of receipt of payments

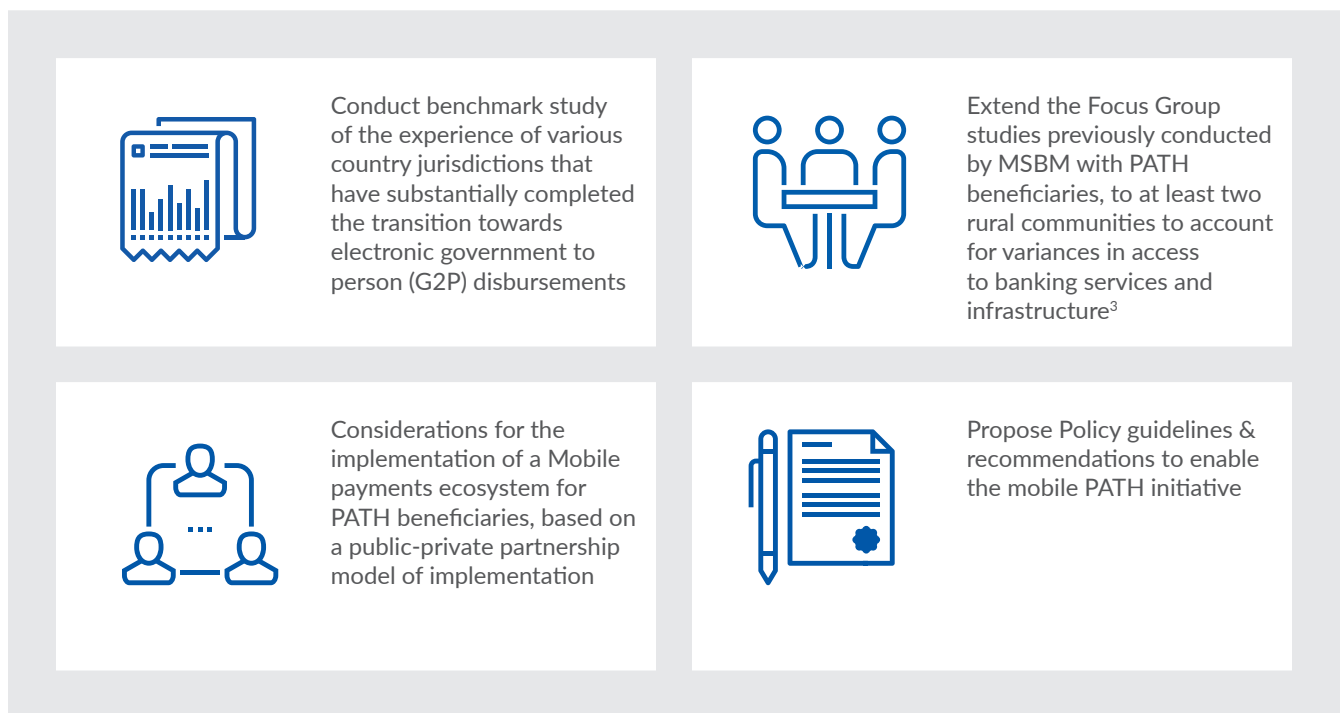
¹Persons without access to the formal financial sector – globally, approximately half of the adult population (Demirgüç-Kunt and Klapper 2012)

²Research conducted during the period Jan – Dec 2012, through funding from: the FCIB/UWI RESEARCH FUND

through the Post Office via check as a tedious and often unpleasant experience and were very responsive to the idea of using the mobile phone for the receipt of payments, once the options and the instructions for use were clear and not complex. However, benchmark studies also highlight the importance of active Government intervention in order to achieve wide-scale adoption. As a case in point, the Mexican Government, in December 2010, mandated government agencies to make all government to person (G2P) disbursements electronically by December 2012. In similar manner, the Government of Jamaica (GoJ) has a unique opportunity to lead by example with electronic PATH disbursements, and signal to key stakeholders, its strong commitment to realizing the potential benefits to be gained from the rapid deployment of mobile financial services.

OBJECTIVES AND SCOPE

The overall goal of this study is to advance the dialogue and evidence base towards informing the requisite policy considerations for the adoption of mobile payments for the delivery of PATH benefits; and to structure the framework for a pilot implementation of a mobile payments system based on a public-private-partnership model of engagement. The specific objectives and scope of study included:



The remainder of this document is structured as follows:

- **SECTION II** examines the relevant Jamaican landscape and context, including considerations arising from the existing GoJ-IMF agreement, the policy posture relating to public-private partnerships and current initiatives relating to the establishment of mobile payments systems;
- **SECTION III** considers the challenges associated with establishing a national mobile payments system, benchmarks the successful Kenyan M-PESA experience and explores the active role of government as a catalyst for the emergence of mobile payments ecosystems;
- **SECTION IV** provides a narrative description and evaluation of several recent country case studies with transitioning to mobile G2P systems;
- **SECTION V** condenses the country case findings into a summary of challenges, lessons learned and best practices;
- **SECTION VI** synthesizes the local research and international experience into making a case for implementing mobile G2P for Jamaica's PATH program;
- **SECTION VII** proposes an implementation approach based on a public-private partnership model of engagement.

³Additional Focus Groups reported under separate cover

II. THE JAMAICA CONTEXT

There are several legislative, regulatory and program initiatives currently underway or under consideration within the Jamaican economic policy landscape that have relevance and/or implications for the adoption of mobile payments for the delivery of PATH benefits.

CURRENT IMF AGREEMENT – IMPLICATIONS AND LINKAGES

Given the importance of the GoJ's current IMF-led economic reform program, it is important to identify relevance and linkages of this initiative to the Memorandum of Economic and Financial Policies (MEFP) framework. The proposed mobile PATH initiative demonstrates tangible linkages to this program in three areas:

1. Commitment to protecting the most socially vulnerable through programmes such as PATH;
2. Increasing operational efficiency of the public sector and social reform; and
3. Facilitating empowerment and self-reliance of the socially vulnerable through financial inclusion;

The related references in the MEFP include:

- The GoJ has underscored its commitment to ensuring that **“the social groups most vulnerable to the decline in economic activity are protected and that the social safety net is not only preserved but broadened, particularly those social programmes that are well targeted and far-reaching”**; PATH is Jamaica's most successful, far-reaching and impactful social benefits programme.
- Under Reform of Social Spending (para 21): **Expenditure rationalisation with respect to social spending will be implemented with a view to effecting savings through enhanced targeting and efficiency without impairing, and possibly improving, social services.**
- Under Public Sector Reform (para 35): **The government is committed to improving the efficiency, quality, and cost effectiveness of the public sector**; The mobile payments initiative estimates significant reduction in labour intensity and the cost of delivery of financial benefits.
- Under Reform of Social Spending (para 38): **The Government of Jamaica is committed to administering a social protection framework that supports the most vulnerable while promoting and facilitating empowerment and self-agency among those who have the ability to become self-reliant and economically productive. This includes strengthening administrative systems, and defining a graduation strategy for PATH households**; This initiative proposes mechanisms geared towards the role of Government as a catalyst for the financial inclusion of PATH beneficiaries, which can lead to financial discipline and ultimately independence.

Furthermore, the MEFP also recognizes the significant benefits of using **Public-Private Partnerships (PPPs)** for developing and upgrading physical infrastructure and service delivery, and positions “Catalytic and strategic private/public investments” as a key component of the growth agenda.

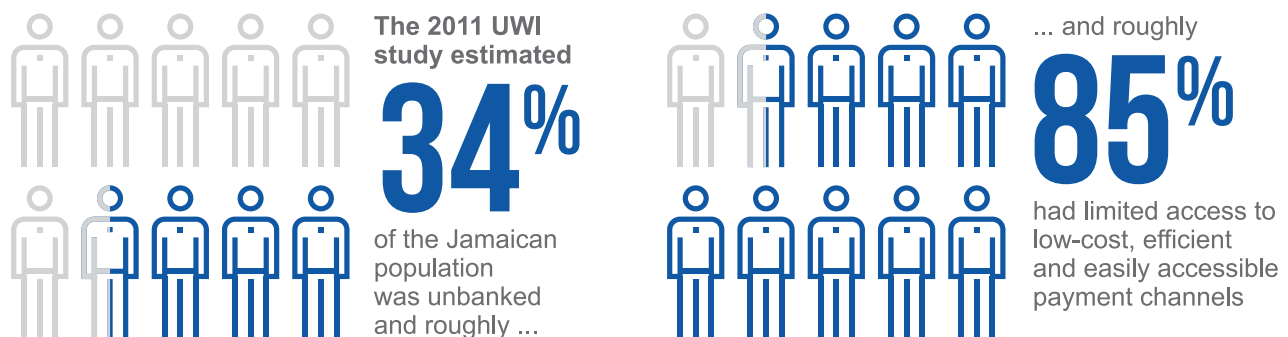
PUBLIC-PRIVATE-PARTNERSHIPS – A VEHICLE FOR NATIONAL DEVELOPMENT

The process of privatising GoJ assets has evolved over 3 decades beginning in the early 1980’s when the emphasis was on a policy that pursued the divestment of equity and control in commercial entities in an effort to minimize the use of public funds to finance the operations of inefficient enterprises, and reduce the burden on the GoJ’s budget. The most recent revision of the GoJ privatization policy (DBJ, 2012) includes Public-Private Partnership (PPP) contracts under which the government contracts with private firms to ensure the provision of public services, where these contracts transfer significant risk and management responsibility to the private party. This new policy seeks to create an environment that facilitates increased private sector participation and investment in economic development activities that include infrastructure projects and provision of public services.

The new privatization policy emphasizes strong linkages to public sector reform and includes among its key precepts, an objective to: “*maximise efficiency in the provision of public services by outsourcing them to private firms where this will deliver greater value for money than continued operation within the public sector*”. PPPs are also seen by the GoJ as a means of stimulating economic growth in the Jamaican economy, and are considered a key component of the PIOJ’s *Growth Inducement Strategy for the Short and Medium Term* (PIOJ, 2011).

It is therefore clear that the GoJ’s Privatization Policy framework and specifically the Public-Private Partnership mechanism provide a supporting and enabling philosophical and policy/procedural context for considering private-sector-led approaches to the adoption of mobile payments for the delivery of PATH benefits. The rationale and procedural detail of such an approach is articulated in detail in **Section VII** of this report.

MOBILE PAYMENTS LANDSCAPE IN JAMAICA



The study concluded that Jamaica exhibits many of the features that are conducive to a successful Mobile Financial System. These include the presence of a physical banking infrastructure that is highly clustered and provides limited accessibility for many citizens to convenient, low cost financial services through traditional bank-owned products. Additionally, mobile phone coverage is island-wide, with a penetration that exceeds 100%. These features suggest that Jamaica is a prime candidate for mobile financial services, and in particular, access to a low-cost mobile payments system is expected to be a strong driver of financial inclusion, more efficient commerce and could be an enabler for business/ICT-sector innovation.

Since then the pace towards the introduction of mobile financial services in Jamaica has been relatively cautious. In April 2013, the Bank of Jamaica (BOJ) issued '**Guidelines for Electronic Retail Payment Services**' (BOJ, 2013) which defined electronic payments as being anchored in the banking infrastructure, and provided the operating parameters for providers of electronic retail payment services (including mobile payments). **The Banking Services Act**⁴, enacted in June, 2014 includes provisions for an agent banking framework that enables commercial banks and other deposit taking institutions to use agents in the delivery of banking services. Other country experiences have shown that such a provision, which allows for the proliferation of readily accessible enrolment and cash-in/cash-out access points, is a key requirement for the scalable deployment of national mobile financial services.

Since the issue of the Electronic Payment Guidelines in 2013, the BOJ has received multiple applications from various entities for authorization to provide electronic retail payment services primarily using mobile devices and authorization for Pilots and Field testing of mobile banking services has been issued to several applicants. However, as at the time of writing, there is no fully operational mobile payments system. However, one of the authorized "trials" most relevant to this study, is the Mobile Money for Microfinance (M3) Pilot Project being executed by the Development Bank of Jamaica (DBJ). M3 is a key component of the DBJ's strategic plan in keeping with its designation as the GoJ's lead agency for the coordination of all related interventions in the microfinance sector. The DBJ sees mobile money as a means of significantly reducing the operating costs of loan disbursements and payment collections, as well as increasing accessibility and security of financial services delivery. The DBJ is currently conducting field implementation of the M3 initiative in collaboration with National Commercial Bank as the custodial banking partner and technology company, Transcel Limited, as the solution provider of the mobile transaction infrastructure and supporting loan administration software.

This initiative which sees the DBJ spearheading the delivery of a mobile payments infrastructure in collaboration with private sector partners, as a means to facilitating operating efficiency and financial inclusion goals provides an important initiative and example of the potential for Government's role as a catalyst in financial inclusion. The highly successful Kenyan mobile payments system, M-PESA, was originally designed as a system to allow microfinance-loan repayments to be made by phone, with the goal of reducing the costs associated with handling cash and thus making possible lower interest rates. After pilot testing it was subsequently broadened to become a general purpose money-transfer scheme in a very short period, the most successful in the world⁵. M-PESA's rapid growth and success benefitted from several factors, including the dominant market position of Safaricom, the largest Mobile Network Operator in Kenya, jointly owned by Vodafone and Telecoms Kenya. The relevant considerations for the role that GoJ could play as a catalyst for realizing such a developmental trajectory in Jamaica, are discussed in detail in the following Section III of this report.

⁴See http://boj.org.jm/financial_sys/supervised_legislation.php

⁵http://www.safaricom.co.ke/mpesa_timeline/timeline.html

III. CHALLENGES IN ESTABLISHING A NATIONAL MOBILE PAYMENTS SYSTEM

INSTITUTIONS, SCALE, COMPETITION AND INTEROPERABILITY

Notwithstanding the seemingly obvious benefits, and the highly visible, rapid uptake and successes in Kenya (M-Pesa) and the Philippines (G-Cash), the task of developing and establishing a scalable, cost-efficient and interoperable national mobile payments system is non-trivial. There are several factors to consider that impact the rate of development, scalability and scope of mobile payments system. The most obvious, and perhaps most critical, are the institutional endowments and practices of the country. McNaughton & Minto-Coy (2015) contrast the regulatory approaches in Kenya and Jamaica, whereby the Central Bank of Kenya (CBK) adopted a very progressive and adaptive posture that allowed “regulation to follow innovation”, while seeking to reassure the market of its ongoing oversight (see also: Vaughan, Fengler, and Joseph 2013). This resulted in less than one year elapsed time between the idea of M-PESA being presented to the Bank of Kenya (August 2006) and the service being launched (March 2007). Jamaica, by contrast, has navigated a much more cautious trajectory through the regulatory hurdles over the course of four years of active interest and discussions about the establishment of mobile financial services. Beyond the formal institutions defined by the state (i.e. policy, legislation and regulation) other influential institutional constraints/enablers arise from the informal social and cultural customs and norms of the country and are particularly significant in relation to commerce; “i.e. when it is costly to transact, institutions matter (North, 1991)”.

Aside from the institutional environment, the effects of market scale and demand factors are also critical to the success of the mobile financial ecosystem.

Aside from the institutional environment, the effects of market scale and demand factors are also critical to the success of the mobile financial ecosystem. Large market size and a latent demand arising from access-to-financial-services deficits have led to the rapid adoption and growth of mobile financial services in the developing economies of the global south leapfrogging similar innovations in developed economies of the North. Mobile payments are particularly amenable to these scale effects due to the added impetus of network externalities, i.e. a mobile payments system generates more transactions and becomes more cost-efficient, the more users with the capability to make peer to peer transactions. According to Van der Boor and Braguinsky (2013), mobile financial services represents one of the first instances where

the balance of larger market size versus technological and institutional barriers to growth in the developing world seems to have decisively shifted in favour of the former, leading to an emerging new pattern of South-North technology diffusion.

In many instances, new competitive markets emerging to displace legacy telecommunications monopoly regimes have been important catalysts in providing the stimulus for the kinds of innovations typically associated with the emergence of mobile payments. The rapid emergence of such innovations and derivative products and services characterize a healthy mobile financial services ecosystem. An important characteristic of the mobile payments system is interoperability⁶, which is a key determinant of scalability and competition. Especially in the relatively small markets of Jamaica and the Caribbean, a fragmented approach with many different operators and systems entering the market leads to unsustainable ventures, wasted capital and difficult to integrate systems. The early experience in Jamaica with the establishment of Bank ATMs before the emergence of JETS⁷ and the Multilink network as a consortium approach to achieving interoperability and scale, is a case in point. However, regulators mandating interoperability at the outset can also discourage potential service providers from entering the market because of the reluctance to invest in developing a platform and identifying, training, and equipping agents if competitors can 'piggyback' off the investment. In such embryonic market circumstances, intervention by the State through institutional mechanisms such as regulation and/or core platforms is critical to achieving growth, critical mass and market equilibrium.

WHY KENYA'S M-PESA WORKED

Introduced in 2007 by Safaricom, the mobile services provider in Kenya, M-PESA experienced an unprecedented rate of adoption, with 10,000 new customers registering for the service daily, and reaching 50 percent of adult Kenyans in less than two years.



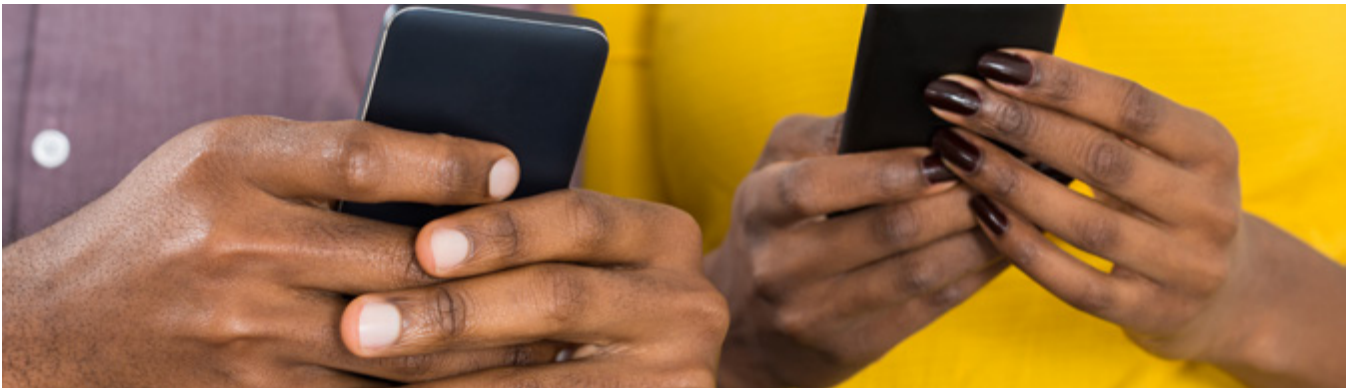
Today, M-PESA is used by over 17m Kenyans, equivalent to more than two-thirds of the adult population, and accounts for financial flows equivalent to around 25% of the country's gross national product. A network of 35,000 agents provide access to M-PESA services across Kenya. Over 500 organizations use M-PESA to conduct business transactions, and make payments for varied items such as social support, dividends and salaries. Many studies have been done about the socio-technical and innovation phenomenon that the M-PESA mobile payment system has become (Jack and Suri 2010; Vaughan, Fengler, and Joseph 2013; The Economist 2013).

While many other countries share some of the preconditions for the success realized by M-PESA, it is the combination of factors that constituted the *almost* perfect storm that is difficult to replicate, at least on the same scale and over a similar time period. The factors most often cited as key to M-PESA's rapid success include:

- **Progressive Regulation** that allowed innovation to proceed even while they developed an appropriate regulatory framework for the operation of mobile money;
- **Latent demand** arising from the limited banking infrastructure, high cost of domestic remittances and security risks with cash;
- **The dominant market position of Safaricom**, coupled with their strategic approach to building the M-PESA brand and a quality service delivery infrastructure through an expansive network of agents.

⁶Interoperability: the set of arrangements, procedures and standards that allow customers from one electronic retail payment service to effect payments to customers in a different electronic retail payment service

⁷JETS Limited manages the MultiLink network that was established in 1997 to serve as a common payments network for financial institutions



Beyond the core mobile payments service, M-PESA has also become the hub of a financial services innovation ecosystem, spawning a range of startup value-added services and businesses. A few examples include:

M-KESHO: Safaricom and Equity Bank partnered in the offering of a new banking system that allows the customer to manage their bank accounts via mobile.

M-SHWARI: a revolutionary banking product exclusively for M-PESA customers provided by Commercial Bank of Africa (CBA) in partnership with Safaricom, providing financial access to millions of Kenyans who previously had no access to micro savings and micro credit.

LIPA KODI: a service that allows property owners collect rent conveniently and at no cost. Property agents sign up for a pay bill account which their tenants pay rent to at their convenience.

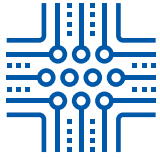
THE ROLE OF GOVERNMENT AS A CATALYST IN FINANCIAL INCLUSION

As seen from the previous discussion, Kenya's M-PESA system had the mutually reinforcing advantages of latent demand for a more efficient, secure system of domestic remittances, and natural market scale, which combined to catalyze an unprecedented rate of adoption and diffusion of the mobile payments system. These conditions were amplified by a responsive regulatory environment. Buoyed by the introduction of mobile money and the wider ICT revolution, the Kenyan economy was growing at rates of almost 5% by 2010⁸.

Prior UWI research supported by other country experiences, posited that the development of a national mobile payments ecosystem can lead to greater financial inclusion, as well as improved productivity of the domestic economy through the increased efficiency of commerce. Both outcomes are consistent with the GoJ's current economic policy ambitions. While Jamaica does not enjoy the natural scale and demand conditions that were key drivers of the growth of M-Pesa in Kenya, we ask the question "Is there an activist GoJ intervention mechanism that could accelerate these outcomes?" We believe the adoption of a mobile payments system for the delivery of PATH Benefits offers a compelling case for such an intervention. With over 300 thousand micro-payment transactions delivered bi-monthly, the GoJ as a partner and anchor client could provide the stimulus for a robust mobile payments ecosystem, which could quickly multiply with the addition of other Government agency micropayments being disbursed through programmes such as the Jamaica Emergency Employment Programme (JEEP).

While PATH can provide the initial conditions for mobile payments to reach critical mass, other opportunities exist for GoJ to accelerate the development of such a comprehensive national mobile financial services ecosystem. A recent CGAP report (Ehrbeck, Pickens, and Tarazi, 2012) articulates three key roles that governments can play that have the greatest potential impact, specifically: (i) promoter of front- and back-end infrastructure, (ii) rules maker with respect to that infrastructure, and (iii) driver of transaction volume (see Figure 1). We briefly examine each of these roles in turn within Jamaica's context.

⁸See: Kenya Economic Update 2010: Kenya at the tipping point? With a special focus on the ICT revolution and mobile money (Kiringai and Fengler 2010)



FINANCIAL INFRASTRUCTURE FACILITATOR: As discussed earlier, prior research (Elliot 2011) indicates that the existing conventional banking infrastructure, for various reasons, including limited reach, cost, prohibitive information requirements (i.e. KYC – Know Your Customer requirements), has failed to provide the majority of Jamaicans (estimated at 86%) with access to low-cost, efficient and easily accessible payments channels. Branchless banking – the use of retail agents and technology to augment the traditional banking infrastructure – now permits front-end financial services infrastructure to reach previously unbanked populations. The DBJ’s M3 initiative already provides a well-advanced example of this approach, and the inclusion of other government services infrastructure, such as the Post Offices and the Collectorates can extend the range and reach of citizen service access points for financial services delivery.



RULE-MAKING: The legislative and regulatory provisions to enable agent banking necessary to support the proliferation of the branchless banking infrastructure is already being promulgated. A critical requirement to ensure that this mobile payments infrastructure scales in the most efficient manner, is the issue of interoperability, as demonstrated by the example of the Multilink network which connects approximately 700 automated teller machines (ATMs) and 10,000 point-of-sale (POS) terminals. Interoperation of payments platforms and agent networks into a common sharable infrastructure, can expand financial access by providing more access points to a greater number of customers, while increasing competition, and driving down costs. The current BOJ

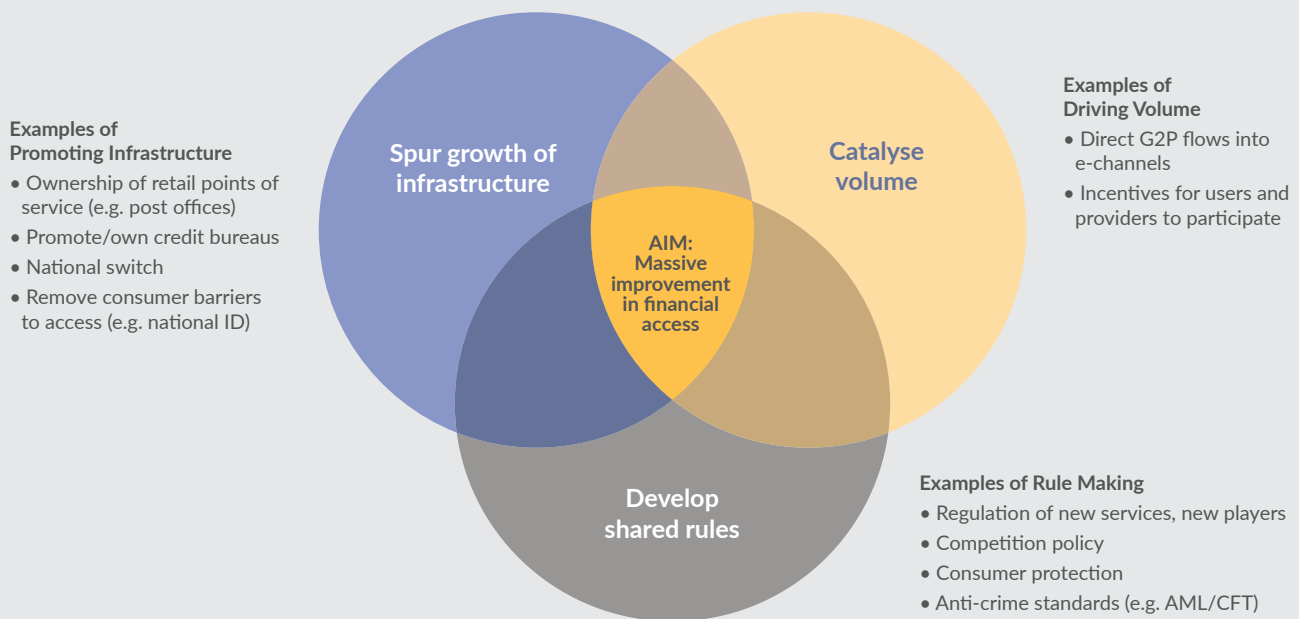
Payments Guidelines mandates interoperability, however the means of achieving this are not stipulated and first movers to the mobile money market see this provision as a commercial deterrent, if competitors can ‘piggyback’ off their investment. However, the Government investing in such a common infrastructure, both in terms of the platform and as an anchor client, can provide the well-needed stimulus to the rapid scaling of the mobile financial services ecosystem.

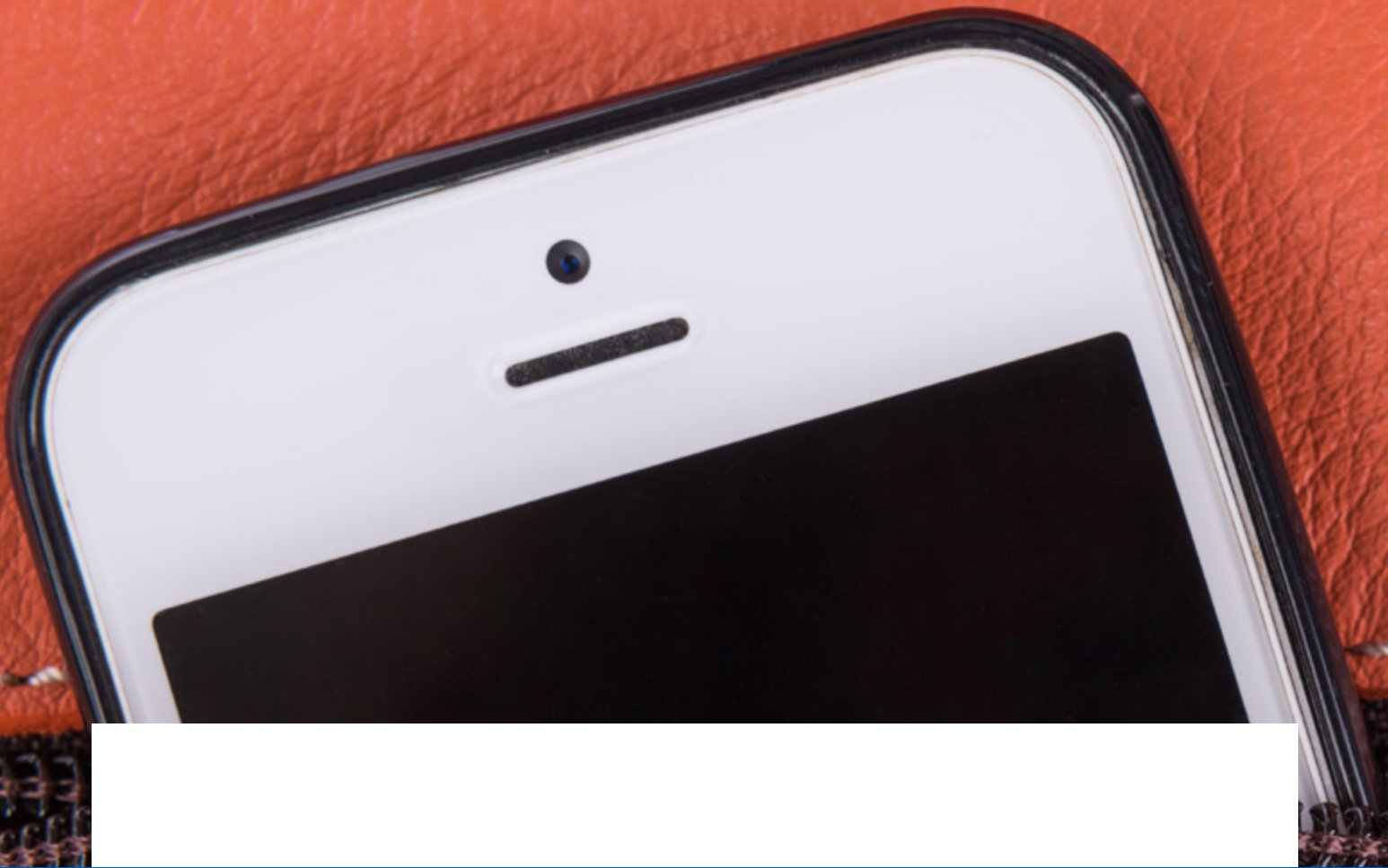


TRANSACTION VOLUME DRIVER: Clearly the most significant impact that the GoJ can have on the rapid scale-up of a mobile payments system is to drive transaction volume as an anchor client. Government-to-person (G2P) payments such as PATH, Pension and wages provide a transaction base in excess of a million micro-payments annually. The proposed system should ensure that these G2P payments are delivered to readily accessible accounts that enable recipients to store funds and use them for other transactions within the general purpose payments infrastructure. This is a critical design requirement to promote financial inclusion, as opposed to depositing cash or using electronic cards that have limited transactional utility because recipients are required/

encouraged to withdraw the entire amount (as has been the experience for the current mechanism for the delivery of PATH payments using NCB cards).

Figure 1: Adopted from Ehrbeck et al. (2012). Financially Inclusive Ecosystems: The roles of government today





IV. COUNTRY CASE STUDIES — MIGRATING TO ELECTRONIC G2P SYSTEMS

There is a growing consensus of the comparative merits, and shift towards electronic G2P systems across the world. The “Better Than Cash Alliance⁹” is a global initiative comprising an alliance of 27 members including governments, private sector and development organizations committed to accelerating the shift from cash to electronic payments. Supported by major funders including: the Bill & Melinda Gates Foundation, Citi, Ford Foundation, MasterCard, Omidyar Network, USAID, and Visa Inc., the “Better Than Cash Alliance” seeks to accelerate the transition to electronic payments and achieve scale globally by raising awareness, and developing cutting-edge research products, best practices case studies and reports. In order to develop a more informed understanding and draw lessons from other country experiences, the actual implementations of four country cases facilitated through this initiative, were reviewed, specifically: *Mexico, Brazil, Kenya and Haiti*. The following sections summarize the findings from this review.

⁹See <http://betterthancash.org/>



MEXICO

Launched in 1997, *Oportunidades* (previously *Progresa*) is the social assistance programme operated by the Government of Mexico, which was designed to stem poverty by providing cash payments to Mexican families in need. *Oportunidades* provides support for nutrition, health and education to approximately 5.9 million needy families. *Oportunidades* offers monetary educational grants to participating families for each child under 22 years of age, who is enrolled in school between the third grade of primary and the third grade of high school. In return, beneficiaries are required to comply with criteria such as, regular school attendance, health clinic visits and nutritional support.

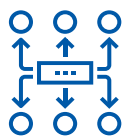


TRANSITION: THE RATIONALE

Mexico's transition from cash to electronic payments was triggered by a December 2010 presidential decree, in which the Government set a deadline of December 2012 by which all G2P disbursements were to be handled electronically (For a detailed report, see: BFA, 2013). The mandate of the transition program was to increase transparency of government payments, streamline bureaucratic processes, and reduce government costs. The programme has often been criticized for its undeniably top-down approach. However, the lack of community participation in the identification of beneficiaries and in the allocation of funding, limits opportunities for corruption at the local level, which is a common challenge for government-funded programs.

Spearheaded by the Ministries of Finance and Treasury, the implementation of *Oportunidades* required each Government agency to submit data on their respective beneficiaries, their transfer values and the frequency of disbursements. The ministries were also charged with developing an educational campaign that would sensitize service providers on the procedures and implications of utilizing electronic disbursements. The Department of Treasury developed the technological platform and drove the process of data collation.

By mid-2012, it was forecasted that 80 percent of *Oportunidades* beneficiaries were receiving payments via a smart card that holds biometric fingerprint information (Pickens, Porteous, and Rotman, 2009).



TRANSITION: LOGISTICAL PROCEDURES

The *Oportunidades* model structure does not allow any of its employees to handle cash. Instead, beneficiaries receive payments via two channels, namely cash transfer and direct deposit to the beneficiary's bank account. Cash transfers are managed by *Telecomm*, a public telecommunications service company that also provides remittance services via *Bansefi*, a government microsavings bank, or by *Diconsa*, a government agency that manages a network of more than 22,000 community-owned stores. At the outset, *Oportunidades* was primarily based cash disbursement, with the vast majority of beneficiaries receiving benefits by this method.

Alternatively, the method of direct deposit of funds into accounts is managed by *Bansefi*. Beneficiaries withdraw funds at *Bansefi* branches or to a lesser extent, via ATM card. This is the Government's preferred method for

Oportunidades, as it is expected to reduce costs as well as to increase the savings by beneficiaries. Unfortunately, the direct deposit method is challenged by a lack of convenient service points and the fact that the majority of beneficiaries are unbanked.

The ultimate objective was to ensure that all *Oportunidades* beneficiaries have a debit card. *Bansefi* was willing to open bank accounts for the unbanked, who are receiving state subsidies. Although the debit card provided an option to be attached to a transactional savings account at *Bansefi*, this was not mandatory. The intent was to eventually ease all beneficiaries into fully transactional savings accounts.



CHALLENGES ENCOUNTERED

The initial progress of the transition was relatively slow due to bureaucratic inertia and reluctance on the part of the agencies to provide the required data on each beneficiary. However, the primary challenge resulted from the state of the electronic payment ecosystems. *Oportunidades* was challenged by the framework inefficiencies of its partners – *Bansefi*, *Telecomm* and *Disconsa* – on how to reach beneficiaries in isolated, small communities. Furthermore, there was no initiative to build electronic payments infrastructure in these areas. The absence of electronic payments ecosystems meant that beneficiaries were unable to easily access and use the electronic form of money. As such, the alternative was to withdraw all the money, thus reducing the benefits of possessing bank accounts as well as tempering any inclination towards saving.

The intent of encouraging beneficiaries to save some of their benefit was confounded by the fact that the beneficiaries often had urgent and immediate need for the money. This was further exacerbated by a general lack of financial awareness by the beneficiaries, such as unfamiliarity with the bank's process of saving, withdrawal and service fees. Additionally, there was a fear that saving, that is, leaving a remainder of the money in their account would make them ineligible to receive further social benefits.



IMPACT OF TRANSITION TO ELECTRONIC G2P DISBURSEMENTS

To evaluate the impact of the transition to electronic G2P disbursements in Mexico, it will be useful to consider the impact on the three main stakeholders namely, the Government, the beneficiaries and the service providers.



IMPACT ON THE GOVERNMENT

For the Government, the transition to electronic disbursements offered a level of transparency on government payments, streamlining of bureaucratic processes and a reduction in expenditure. It is estimated that efficiency gains from disbursing its social service programs via electronic means would approach 8.3 billion pesos, or 0.1% of GDP. The contract between *Banxico* and the Treasury for the payments was based on a fixed fee, which would not fluctuate with the number and value of transactions processed. The advantage was that the Treasury signs bulk contracts with the banks, increasing its bargaining power and reducing costs (Fletcher School, 2011). In this regard, *Oportunidades* has been credited with having a major role in helping slash the proportion of Mexico's population living in extreme poverty from 37 percent to 14 percent between 1996 and 2006.



IMPACT ON BENEFICIARIES

The transition to electronic disbursements was expected to afford certain opportunities for the beneficiaries, including financial inclusion, increased ability to make more informed decisions, and a reduction in the wait and travel times traditionally associated with the collection of benefits. However, beneficiaries were often not able to access credit and other financial products (even when such services are specifically designed by the Government to reach the poor) because they lacked a verifiable steady income. Payments via electronic means would have required opening of bank accounts with less stringent opening criteria. The G2P would serve as proof of income thereby facilitating access to financial products by beneficiaries. Although there were challenges with the introduction of debit cards to disburse payments, there was a documented increase in the number of families using banking services when they received their benefits through debit cards and a 12 percent increase on average in the families' use of grants for income-generating activities or microenterprises.

Nonetheless, the shift to electronic payments in Mexico led to a shift in the attitude and behaviours of beneficiaries towards saving. Research shows that a significant number of beneficiaries, who received benefits via debit card, did not withdraw the whole sum of their *Oportunidades* transfer. This suggests that low-income households will save when appropriate financial instruments are made available (Masino and Niño-Zarazúa, 2014). Findings also indicate that beneficiaries received remittances more frequently via electronic payments and that there was a decrease in participation in informal savings groups. Beneficiaries developed better

shock coping strategies whereby they would often resort to their savings first rather than debt accumulation. Payment through electronic means also helped families to reduce impulse buying. In addition to the cost of travel, beneficiaries in Mexico previously suffered from the opportunity cost of leaving their economic activities unattended on collection days. However, studies showed considerable reduction in transaction and opportunity costs— a 77% savings— by virtue of being able to collect their G2P payment (in cash) at a pay-point no further than 4km away from their homes. Recipients' satisfaction with and trust in the delivery mechanism is reported to be upwards of 97% (BFA 2013).



IMPACT ON SERVICE PROVIDERS

There was much at stake for the participating financial institutions – Bansefi and Telecomm. If the anticipated benefits of financial inclusion were not realized, Mexican banks would be one of the major losers from the transition to electronic disbursements. They would lose a potentially important source of revenue and have much less power to negotiate contracts as they currently liaise with the Treasury and not the respective agencies. Banks would lose revenue not only from fees, but also from interest on money sitting in the agencies' accounts.



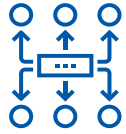
BRAZIL

A result of the merger of four pre-existing cash transfer programmes, Bolsa Familia (BFP) was launched in October 2003 by the Brazilian Government in an effort to provide financial support to families with children as well as pregnant or breastfeeding women in extreme poverty. Servicing approximately 13 million households, Bolsa Familia, seeks to reduce current poverty and inequality by providing a minimum level of income for extremely poor families; break the inter-generational transmission of poverty by conditioning these transfers on beneficiary compliance with human capital requirements (school attendance, vaccines, pre-natal visits). The BFP, which is the largest conditional transfer program in the developing world, also seeks to help empower beneficiaries by linking them to complementary services. In order to maintain eligibility, a family must vaccinate their children, get twice-yearly health check-ups, and send children and adolescents to school. To maintain accountability, this data is communicated to the Government by both the schools and health clinics.



TRANSITION: THE RATIONALE

Bolsa Familia makes payments via Caixa Econômica Federal, the banking system, which credits benefit payments to beneficiaries' Electronic Benefit Cards (EBCs) on a monthly basis. The anticipated benefits of utilizing electronic disbursements included improved transparency and efficiency, mitigating the risk of clientelism and corruption, and providing beneficiaries with opportunities for financial inclusion.



TRANSITION: LOGISTICAL PROCEDURES

The Caixa Econômica Federal, state-owned and the second largest bank in Brazil, was contracted as the programme's operating agent. The Caixa consolidates and manages the national registry database for social programs, while the Cadastro Único, assigns registered individuals the unique Social Identification Number (NIS). Registration is done locally near the residence of the beneficiaries and the Electronic Benefit Cards (EBCs) or Citizen Cards are mailed preferably to the female head of a household. Beneficiaries also receive letters explaining how to enable the card and other relevant information about the program. Caixa makes payments directly, crediting beneficiaries on a monthly basis through its extensive banking network. Beneficiaries must sign terms of liability and activate the card password at the financial agent which will be responsible for payment delivery. This Caixa-issued card operates like a debit card where the benefits can be withdrawn in over 14,000 Caixa locations (For a detailed report, see: Diniz, João, and Cernev 2012).



CHALLENGES ENCOUNTERED

Brazil's main challenge with Bolsa Familia was reaching the 300 municipalities, which did not have any established payment channels. Beneficiaries were spending up to 11% of their benefits travelling to the nearest payment outlet. There were also challenges with delivering benefit payments through correspondents, as the small retailers had inefficient management capabilities. Common problems, such as the shortage of cash as well as mismanagement of the correspondents' operations, directly affected the beneficiaries' access to payments.



IMPACT ON THE GOVERNMENT

Studies have shown that the Bolsa Familia played a significant role in the reduction in income inequality, which in turn has been instrumental in reducing extreme poverty. Results of annual household surveys show that Bolsa Familia accounted for a significant share (20-25%) of Brazil's recent reduction of inequality and 16% of the recent fall in extreme poverty. Additionally, the Government was able to reduce administrative costs from 14.7% to 2.4% of the total grant value by moving to an electronic payment program. The establishment of an electronic ecosystem to support Bolsa Familia also benefitted the Brazilian macro economy, as payment via the correspondent model stimulated the local economy in the short term as it increased spending and consumption in local shops and warehouses.



IMPACT ON BENEFICIARIES

Unfortunately, most Bolsa Familia beneficiaries were not financially included in the banking system, that is, they had typically neither opened a bank account, nor have they ever requested a loan/overdraft. Correspondent bank owners did not offer additional financial services to beneficiaries as they believed Bolsa Familia would not present viable financial gains to the bank. Consequently, most beneficiaries reported that they were not made aware of the advantages to be derived from opening a bank account.



IMPACT ON SERVICE PROVIDERS

Delivering 80% of all Federal Government social benefits, the main service provider Caixa Economica Federal, operates through a network of correspondents including 9,000 lotteries and 14,000 grocery and drugstores. These retailers, who were hired as correspondents, benefitted from increasing sales, thereby improving the quality of life, generating employment and income opportunities within the local communities in which they operated.



KENYA

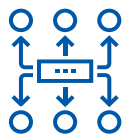
Launched in 2012, Cash for Assets (CFA), was a collaborative effort between World Food Programme (WFP) and the Government of Kenya. CFA is a conditional cash transfer scheme that reaches food insecure households in seven arid and semi-arid land (ASAL) counties in eastern and coastal Kenya, where recipients work on community assets to build resilience against drought. Servicing 80,000 households, the programme initially set out to test the process for and efficiency gains of a shift from food aid distribution to cash distribution via e-payment (For detailed report, see: BFA, 2013b). Additionally, the programme sought to evaluate the relative welfare gains in households through food versus direct money payments.



TRANSITION: THE RATIONALE

WFP Kenya decided to explore possibilities for new modalities in delivering food assistance by launching an Innovations Team and experimenting with modifications of an already established program, Food for Assets (FFA). The decision to use e-payments was driven by the need to move beyond delivering food directly to beneficiaries, as cash disbursements were unsecure and risky. The rationale for the e-payment distribution model includes factors, such as:

- Organizational Learning – Contributed to WFP’s growing knowledge base of how direct payments can be used to address food insecurity compared to food delivery.
- Maximizing Recipient Benefits – Enabled beneficiaries to receive payments quicker, safer and more conveniently while building assets and positively affecting financial behaviours, financial capability, and human capital investment.
- Encouraging Financial Inclusion – Provided access to bank accounts which provided a range of appropriate and affordable financial services and resilience among vulnerable recipients in order to build a foundation for the future.



TRANSITION: LOGISTICAL PROCEDURES

In October 2010, WFP and Equity conducted a two-month test run of the initial enrolment and payment processes through M-KESHO among 3,660 households in three market locations in one county, Mwingi. Pilot included coordination among service providers to collect the necessary recipient information (i.e., full name and ID number), educate recipients about the program and payment process, and share the data with WFP and Equity Bank to reconcile the program and bank’s data to open and process payments into each M-KESHO account.

WFP Kenya collaborated with Equity Bank for the pre-pilot and pilot phases of implementation. WFP planned to take advantage of M-KESHO. However, WFP and Equity Bank decided to forego the mobile money linkage after 74% of recipients did not receive mobile payments due to technology challenges. They subsequently

engaged in a competitive bid process where Cooperative Bank was selected as the payment service provider for the period 2013-2015.

The new debit card-based system, which provided each recipient with an Equity account and debit card, quickly improved the overall payment process for the program, the payment service provider, and the recipients: 59% of participants received their payments by the end of the pilot period, a 33% increase.

The revamped CFA structure involved payments being deposited in a mainstream general purpose bank account. Recipients had the option of withdrawing their transfers using debit cards at local agents, Equity Bank branches, or ATMs. Card-based payments are considered one of the most effective components of the CFA payment scheme.



CHALLENGES ENCOUNTERED

Almost 20% of CFA recipients lacked the necessary documentation, i.e. a national ID, required to open a Bank account. WFP developed a work-around solution where recipients could designate an “alternate,” that is, a trusted individual with the necessary documentation who could withdraw the payment on the recipient’s behalf. The recipients were also challenged by their incapacity to manipulate the POS and PIN without agent interference or assistance.

On the other hand, the CFA representatives required different skills, such as computer skills, attention to detail and understanding the importance of accurate data, to implement targeting and registration processes for CFA. CFA reached a point in which Equity Bank rejected 75% of recipient payments because of data discrepancies. WFP was forced to halt operations in order to conduct a comprehensive data clean-up and retraining process for representatives.

CFA offered access to different types of pay points, such as agents, branches, and ATMs. However, the number of each available in each county was less than satisfactory. CFA was also challenged by data management processes. After trying to manage program data using simple spreadsheet technology, WFP Kenya found that managing, cleaning, and maintaining such a high volume of detailed data would require a more developed management information system (MIS). As a result, WFP Kenya invested in creating a custom in-house MIS for CFA.



IMPACT ON THE GOVERNMENT

WFP Kenya found e-payments to be 15% cheaper than in-kind food assistance, while also spurring economic activity in local markets in each county, reducing leakage, and improving transparency (WFP 2011).



IMPACT ON BENEFICIARIES

Equity Bank organized for CFA recipients to receive 13 one-day sessions of financial literacy training through Equity Foundation. There were plans for recipients via Cooperative Bank to join affiliated credit unions to begin savings habits and build credit worthiness. Although the linkage to a formal bank account through CFA is a source of pride for the program, at the outset, almost 20% of CFA recipients lacked the identification necessary to open a bank account. Additionally, a number of recipients interviewed did not understand the fees they incurred for transacting; variations in the amount received; and who to contact for payment-related problems.

A majority of recipients withdrew the full amount of each payment and did not use their accounts for other purposes. A small number of recipients demonstrated commitment to saving not only for emergencies, but for other investments, such as to buy livestock and pay back debts, in addition to paying for school fees. Additionally, some recipients located closer to main roads, agents, and bank branches indicated their awareness and usage of loans with microfinance institutions and savings with nearby banks.

Recipients found that the distance to agents was a problem (especially in Malindi where many recipients opted instead to go to the branch). If their accounts have not yet been credited, recipients had to decide whether to stay overnight or to return later. Due to the high number of recipients withdrawing at each agent or branch, recipients also waited in line for a long time, which was further exacerbated by not receiving the right amount of money, whether due to problems with the agent or recipient misunderstandings.



IMPACT ON SERVICE PROVIDERS

The service providers – Equity Bank and Cooperative Bank – cited CFA as a strategic case for partnership. They foresaw benefiting from additional valuable partnerships with WFP and/or other electronic payments (e-payments) programs. Equity Bank did not identify the CFA product or the client base as financially attractive. Cooperative Bank, on the other hand, anticipates a business case at both the strategic and portfolio levels, particularly if recipients participate in affiliated savings and credit cooperatives as envisioned.

The challenges Equity has faced in its efforts to uphold its commitments as the CFA Payment Services Provider may be a reflection of a questionable business case: the bank agreed to make a substantial investment without much additional revenue from WFP Kenya to fuel it. On the other hand, WFP field staff have embraced the opportunities and capitalized on the challenges of the CFA program over the past two years. Some admitted that food distributions are easier for staff and partners to manage, particularly given their years of experience with it, though this process is more expensive. At the launch of CFA, staff and partners struggled to keep up with data management. Despite the data management challenges accompanying the shift from food to cash, the staff expect that the e-payment system will become easier as the processes are streamlined and as they grow more comfortable with the system.



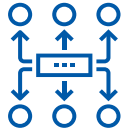
HAITI

Launched in 2012, Ti Manman Cheri (TMC) was Haiti's first conditional cash transfer (CCT) program developed to complement and strengthen the impact of the Government of Haiti's nascent universal access to education program, Lekol Timoun Yo. Impacting 75,000 households, TMC aims to provide financial support for mothers with school-age children living in impoverished and underprivileged communities, ensure the attendance and retention of these recipients' children in national and communal schools and empower Haitian mothers.



TRANSITION: THE RATIONALE

The decision to use electronic payments, and in particular mobile money payments, was primarily driven by the fact that Haiti was prone to leakage and lack of transparency (For a detailed report, see: BFA, 2013c). The Haitian government believed electronic payments would offer greater efficiency and transparency to the process. Additionally, the transition promised cost-saving opportunities with mobile money fees positioned at 3.5 times less than manual cash payments. The move to mobile money was further propelled by a good working relationship between the Haitian Prime Minister and Digicel's CEO.



TRANSITION: THE LOGISTICS

Haiti benefitted from US\$15 million allocated from Venezuela's PetroCaribe fund to cover TMC's first year of set up, operations, and cash transfer payments. The Haitian government and Digicel conceptualized, designed, and launched the program within six months. Digicel was the selected payment service provider, however, after a series of challenges post-launch, a second provider was added, Unitransfer.

The registration process for TchoTcho Mobile¹⁰ Payment for recipients required submission of registration verification, a Digicel phone number, TchoTcho Mobile account with know-your-customer information. For Unitransfer Voucher Payment, the registration process simply required national ID and registration verification. The payment structure for TchoTcho Mobile required a SIM card in the recipient's mobile phone which must have a 4-digit PIN. Digicel put in place 900 mobile agents with the capacity and liquidity to facilitate transactions by recipients while payment disbursements for Unitransfer were effected by a Paper Voucher taken to an agent/teller at its central branches or at mobile kiosks in more remote areas.

As it relates to withdrawal of benefits, Unitransfer recipients received the voucher at their children's school to take to the Unitransfer branch, where they would have to withdraw all their money at once. TchoTcho Mobile recipients were not required to withdraw all their money at once, but must withdraw at least a portion of it within 3 months of receiving the payment. Beneficiaries did not pay a fee for the first withdrawal, however, a mobile money fee was charged for subsequent withdrawals.



CHALLENGES ENCOUNTERED

Perhaps the source of greatest challenge to the mobile G2P initiative in Haiti, was the fact that Ti Manman Cheri (TMC), was Haiti's first government-led conditional cash transfer program, so unlike other cases where established programs were transitioning to mobile payments, TMC and the mobile payments delivery system using TchoTcho Mobile were being rolled out concurrently. This presented a unique opportunity to design the TMC enrolment and payments delivery system around the existing mobile phone infrastructure. However the undue political pressure to launch the program within six months after conceptualization (See fig 2), and the subsequent decision to accelerate the roll-out nationwide just weeks after the program's official launch, bypassing the planned Pilot, compromised the success of the implementation.

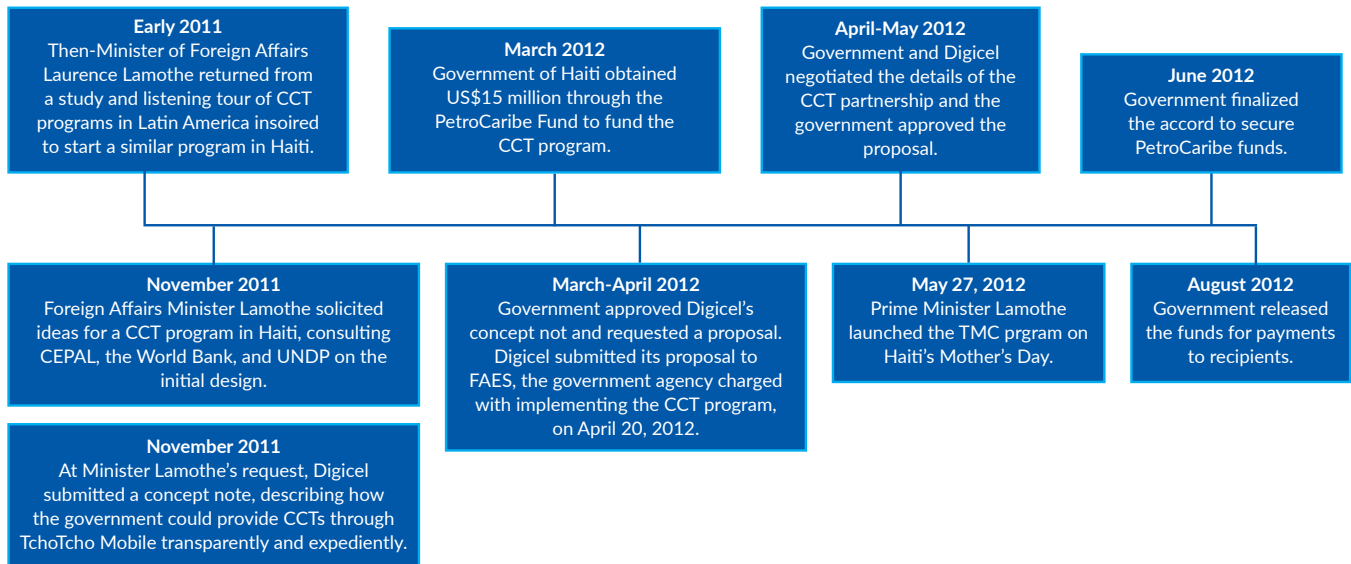
Digicel's TchoTcho Mobile as the payment service provider (PSP) was unable to respond effectively to the accelerated deployment, and lacked sufficient agent penetration outside of the capital city of Port au Prince to implement mobile money-based cash transfer payments nationwide. The partners also lacked the capacity—in backend data management, operating systems, or technically trained staff—required to effectively manage the startup operations and administration of the Ti Manman Cheri (TMC) program.

Significant operational challenges arose from the efforts to concurrently register the recipients in the TMC program, enrol recipients into a TchoTcho Mobile account and complete the KYC requirements, as a single registration process. This was also compounded by the much larger than expected crowds that turned out at the prospect of cash transfers and free phones, often resulting in out of control and dangerous situations for the overwhelmed TMC staff.

As a result of the excessive implementation challenges, TMC decided to implement an alternative payment delivery option through Unitransfer, a domestic and an international remittance subsidiary of commercial bank Unibank. Unitransfer used a more conventional mechanism of vouchers which are encashed at Unitransfer Unibank branches or mobile kiosks mobilized for hard to reach locations. After one year of operations, only 23,000 recipients received payments through TchoTcho Mobile while the majority (52,000) received cash voucher payments through Unitransfer. The fees paid by the government to Unitransfer for each transfer are 3.5 times higher than those paid for the mobile transfer, which resulted in the TMC's operational costs being considerably higher than originally planned, forcing the program to move to bi-monthly payments.

¹⁰Digicel's TchoTcho Mobile is Digicel's mobile phone service in Haiti, which launched in November 2010

Figure 2: Ti Manman Cheri Design Timeline



IMPACT ON THE GOVERNMENT

Ti Manman Cheri came at a transitional time within Haiti’s political economy, on the heels of a volatile election in an economy still reeling from the devastation of natural disasters and grappling with how to manage an influx of aid and attention showered on the country. The Government was able to satisfy prime minister Laurent Lamothe’s vision for Haiti’s first conditional cash transfer (CCT) program by launching the TMC program within 6 months from conception.

“Ti Manman Cheri started from nothing. We had to build it all—the design, the program, the teams. But it was immediately a big program and a big priority for [the government] so we decided we had to just start and then improve as we go.” — Marie Lievre, strategist and consultant to the General Director of Fonds d’Assistance Economique et Sociale

At the outset the Government embraced mobile money for its “simplicity” and “ability to efficiently get money directly to the people.” However the implementation was compromised by political expediency and pressure to take the program to scale across the country as quickly as possible, compounded by the need to find a mechanism to quickly provide assistance to Haitians affected by Hurricane Sandy.



IMPACT ON BENEFICIARIES

It’s difficult to separate the impact of mobile G2P from the concurrent effects of the launch of Haiti’s 1st CCT program.

Speaking to the Haitian Prime Minister at a launch event for Ti Manman Cheri (TMC), Haiti’s first government-led conditional cash transfer program, an elderly lady proclaimed, “It’s the first time in my life that the government has helped the people.” Media captured the moment, and the quote became the slogan for TMC.

In general, various NGOs operating in Haiti embraced mobile money as an efficient means of effecting cash transfer schemes to provide relief to people in Port au Prince and concentrated areas around the country. Recipients valued the security, convenience, and trust of the service and continued to use their mobile wallets for weeks after receiving money, as a kind of secure on-demand savings account. Despite some recipients’ difficulties with manipulating their phones, those that were able to access their TMC benefits through the mobile payments method, found TchoTcho Mobile to be effective: simple, fast, and secure. However the implementation challenges with mobile money meant that the more conventional cash voucher payment method through the well-established Unitransfer service provider became the overall preferred delivery method, serving 52,000 of the 75,000 total recipients with TchoTcho Mobile serving just 23,000. The absence of adequate agent penetration island-wide and poorly designed support systems, made recipients’ experience with mobile money a frustrating one with overburdened agents, long lines and frequent payment delays.



IMPACT ON SERVICE PROVIDERS

Both Payment Service Providers (PSP) in Haiti had very different approaches and experiences in supporting the TMC implementation. Digicel, who were integral in its conceptualization, designed the TMC enrolment and payments delivery mechanism around the existing TchoTcho mobile payments system. However the implementation challenges and the subsequent introduction of the alternative Unitransfer PSP meant that Digicel ultimately captured only 30% of the payout activity (23,000 txns). While the TMC presented an opportunity to build out their agent network coverage and diversify product offerings, they were unable to respond to the demands of the accelerated rollout which stretched their operational and commercial capacity.

With their primary motivation for partnering with the Government of Haiti seemingly political, social and strategic, there appeared to be an absence of a clear business case for the program. With a transaction fee less than one-third of the competing PSP, it is uncertain whether the TchoTcho mobile payments service delivery for TMC will be sustainable in its current form.

For the Unibank subsidiary, Unitransfer, the TMC program appeared to be a better fit for their more established, standard money transfer business model. With the majority of the TMC payments (52,000) and earning 3.5 times more per payment than Digicel, Unitransfer has a more immediately sustainable operation as the TMC Payments Service Provider. Overall, Unitransfer's voucher system was rated as the more effective payments mechanism by both the TMC program and beneficiaries. However the significantly higher operating costs also call into question program sustainability.

V. SUMMARY OF CHALLENGES AND LESSONS — ESTABLISHING MOBILE G2P SYSTEMS

In each of the country cases studied, there were several challenges encountered as the states transitioned to electronic disbursements. The following section summarizes the lessons learnt and best practices identified resulting from a study of these issues across the cases.

REGULATION: THE STARTING POINT

To realize an unprecedented process of mobile G2P systems, it is important to start the process with supporting Government legislation and regulation. This serves to diminish resistance among the relevant parties and helps to set tangible deadlines that should be issued from the top to be filtered downwards. Mexico was able to develop strict government regulations that included specific deliverables and timelines relating to the implementation of electronic payments.

As it relates to the objectives outlined in the legislation, the governing bodies should ensure that the legislation is consistent with the overall objectives of the transition. For example in Mexico, resistance to adoption by beneficiaries was due to the fact that there was no 'real' proof of payment of benefits. The Government then responded with an amendment to the Fiscal Code which would explicitly recognize the legitimacy of the electronic invoice of the benefit.

The regulatory framework should allow for some flexibility in execution. In Kenya, it was identified that procurement flexibility was needed to fit program needs; and continual flexibility to adapt to the conditions and realities of implementation.

Additionally, the Government should seek to identify the milestones of the implementation. It will be important for the governing bodies to pinpoint the winners and losers in advance and thereby begin to design appropriate incentives, geared towards achieving the milestones.

CONDUCT MARKET RESEARCH AND ASSESSMENT OF BENEFICIARY READINESS

A concurrent phase would involve conducting market research, where the Government or any of the programme's designing partners will complete a feasibility study and a diagnostic of the readiness of beneficiaries for mobile payments. This will help to fully assess the risks and inform the program approach and planning for mitigation activities. This study will predict potential pitfalls that can be proactively managed to allow for effective implementation.

In Haiti, the TMC Project Manager was reported to have complained that, "They did not ask 'what if?' enough. It was about results." Instead of conducting market research specific to the target recipients under the TMC program, Digicel instead, relied on the research conducted for the earlier development of the TchoTcho Mobile product, assuming TMC recipients would make up a similar demographic. As a result, the TchoTcho Mobile product features were not adapted to suit the demands or needs of TMC recipients.

Drafts of plans for project implementation will benefit from clarity of the partnership structure between service providers and the governing bodies, thorough pre-implementation recipient research and ongoing monitoring, and a sound assessment of the country's infrastructure preparedness. In the case of Haiti, Digicel's TchoTcho mobile agent network and platform were not quite ready for the program and the speed at which it evolved, as such the struggle to use mobile money for electronic disbursements in Haiti is less a product of a failure of the mobile money platform, and more a product of hasty planning that failed to fully consider the implications of the platform's limits.

Conversely, in Kenya, thorough market research was conducted which included a pre-pilot phase with 3,996 recipients for 2 months in 2010 followed by a pilot phase with 4,684 recipients for 10 months in 2011. The launch of CFA began in 2011 with 80,000 recipients. The benefit of this level of pre-planning was evident as the Head of the Card Centre for Haiti's service provider Cooperative Bank, Florence Owuor, stated, "We saw the challenges faced by early movers, like payment rejection because of bad customer data, and can avoid them."

ASSIGN KEY DRIVERS/RESPONSIBILITIES

The implementation plan should include an early assignment of responsibilities to specific stakeholders, as this helps to ensure that the transition will be transparent and allows for accountability. The Mexican Government charged the Department of Treasury and the Ministry of Finance with the management of the transition process. Unfortunately, the Mexican implementation team was short-staffed as the accelerated implementation deadline by the Government coincided with a period when these institutions were experiencing staff rationalization and a freeze in new hiring. As such, the assignment of drivers that were not equipped to manage the task may be partly responsible for the initial bureaucratic inertia.

A critical pre-requisite of the key drivers is that they should possess political and technical acumen. Having an institutional "champion" from within the government with: (i) the vision to lead and drive the initiative; (ii) the hierarchy and authority to coordinate and oversee all participants; and (iii) the capacity to enforce accountability and ensure alignment. Considerable political capital is required to garner support from other enabling agencies and service providers, which will be needed to sustain the process, once inevitable challenges are encountered.

DEVELOP THE ELECTRONIC PAYMENTS ECOSYSTEM

In order to implement a successful national mobile G2P system, a thorough evaluation of the country's supporting electronic payment systems will need to be conducted. Issues such as mobile phone penetration and a solid agency network are key pre-requisites when adopting a mobile payments system. Additionally, the existence of adequate points of transactions where beneficiaries can use their cards or mobile devices in exchange for cash, goods or services will be crucial to the success of the program.

Mexico's greatest challenge was collaborating with its partners – Bansefi, Telecom and Disconsa – on reaching beneficiaries in isolated, small communities. The absence of electronic payments ecosystems in these communities meant that beneficiaries were not readily able to access the electronic form of money. As such, the alternative was to withdraw all of the monthly benefit, thus reducing the benefits to be derived from having bank accounts.

“We saw the challenges faced by early movers, like payment rejection because of bad customer data, and can avoid them.”

Similarly, Brazil's main challenge with Bolsa Familia was reaching the 300 municipalities that had no established payment channels. As a result, Bolsa Familia beneficiaries spent up to 11% of benefits travelling to the nearest payment outlet. In Haiti, the payment service provider lacked sufficient agent penetration to implement mobile money-based cash transfer payments nationwide TMC. The Payment Services Provider (PSP) never developed the capacity in backend data management, operating systems, or technically trained staff, which was necessary to effectively manage the operations of the cash transfer payments system.

The World Food Program Kenya (WFP) and Equity Bank conducted a two-month test run of the initial enrolment and payment processes for Cash for Assets with 3,660 households in three market locations in one county, Mwingi. 74% did not receive mobile payments due to technology challenges. As a result, WFP and Equity were forced to terminate the mobile money linkage after only two months. The subsequent debit card-based system, which provided each recipient with an Equity account and debit card, was introduced and it quickly improved the overall payment process for the program. At the end of the test run, 59% of participants received their payments by the end of the pilot period, which was a 33% increase.

Additionally, specialized training of the staff, especially banking agents, of the service providers is critical to the pre-implementation process. In Kenya, the CFA staff required specific skills, such as computer skills, attention to detail and understanding the importance of accurate data, in order to implement targeting and registration processes for CFA. CFA reached a point in which Equity Bank rejected 75% of recipient payments because of data discrepancies, WFP was forced to conduct a comprehensive data clean-up and retraining process for staff members during implementation.

LAUNCH AN AWARENESS AND EDUCATION CAMPAIGN

A critical process in the planning involves the awareness and education of beneficiaries on the essence of electronic payments and subsequently, how to accept and use electronic payments. This will serve to improve beneficiary acceptance by reducing fears, which restrict usage and complete adoption. It may be necessary to consider the use of incentives to encourage particular behaviours.

In order to secure stakeholder buy-in in Haiti, the Prime Minister introduced TMC to political leadership, including senators, deputies, delegates, mayors, and other pertinent political leaders in the target communities. The TMC staff consistently reported that they underestimated the need for recipient training on TMC payments. For many recipients, this was their first time using a mobile money product; for all recipients, it was their first time registering for a mobile phone-based government payment program. Staff frustration with this process led to some recipients expressing disappointment in the customer service.

In Kenya via Equity Bank, WFP Kenya field offices, and staff coordinated recipient enrolment in CFA, which included mobilizing recipients to open banks accounts, issuing ATM cards, and training recipients on how to use their cards and other basic financial management. Mexico would have benefited from this training as Oportunidades recipients reported a fear that saving any of the benefit in their account would make them ineligible to receive further social benefits.

Additionally, once the pre-implementation training has been executed, the addition of a contact center support mechanism through which recipients will be able to voice concerns may also prove beneficial.

ESTABLISH KEY PARTNERSHIPS AND INSTITUTIONAL ALIGNMENT

A project of this nature will require multiple partners from both public and private sectors with diverse but complementary skills and interests. A key requirement is to identify solid partners and to determine their interest to cooperate; their execution capacity and technical capabilities; their ability (or openness) to innovate; and their understanding of, and level of commitment to a financial inclusion agenda. Given the high-risk social and political profile and potential impact magnitude of electronic G2P initiatives, a sufficiently large and successful pilot is needed to secure the interest of policy-makers and other potential stakeholders. External funding can be a catalyst to expediting proof of concept and, if successful, delivering the necessary evidence that governments may need to embrace an electronic G2P project initiative and be willing to bring it to scale. Simplified MOUs for a Pilot will help to reduce intra- and inter-institutional coordination challenges and secure institutional alignment.

A critical pre-requisite of the key drivers is that they should possess political and technical acumen. Having an institutional “champion” from within the government with:



the vision to lead and drive the initiative



the hierarchy and authority to coordinate and oversee all participants



the capacity to enforce accountability and ensure alignment

Considerable political capital is required to garner support from other enabling agencies and service providers, which will be needed to sustain the process, once inevitable challenges are encountered.

VI. A CASE FOR IMPLEMENTING MOBILE G2P FOR JAMAICA'S PATH PROGRAM

The case for establishing a national mobile payments ecosystem in Jamaica seems clear. According to the benchmark studies, Jamaica exhibits many of the features that are preconditions for a successful Mobile Financial System. These include the presence of a physical banking infrastructure that is highly clustered and the limited access to low-cost, efficient and easily accessible payments channels using bank-owned products. Additionally, mobile phone coverage and penetration in the island currently exceeds 100%, as reported by Jamaica's most dominant carrier. Prior UWI research, supported by other country experiences, most notably M-PESA in Kenya, suggest that a broad-based mobile payments infrastructure can lead to greater financial inclusion, as well as improved productivity of the domestic economy through the increased efficiency of commerce, and ultimately provide a catalyst for innovation. These outcomes are consistent with the GoJ's current economic policy ambitions.

In **Section III** of this report, we argued that adopting mobile payments for the delivery of PATH benefits, taken together with the other Government-led interventions, could stimulate the scale-up of mobile financial services in Jamaica. While this could be a compelling proposition for GoJ, it is important to first examine and justify the case for mobile PATH payments, primarily in terms of the intrinsic benefits to the program and its stakeholders, before considering the benefits of positive externalities. This section makes such a case, considering separately then together, the potential benefits and impact on the three key stakeholders – Government, Payment Service Providers and PATH Beneficiaries.

POTENTIAL BENEFITS OF ELECTRONIC G2P SYSTEMS FOR KEY STAKEHOLDERS

GOVERNMENT OF JAMAICA

Of the primary stakeholders, the Government of Jamaica (GoJ) stands to gain most from the transition to electronic disbursement of PATH payments. The advantages most often cited include:

- Reduction in labour intensity and cost of delivery of financial benefits;
- Promoting socioeconomic welfare through greater financial inclusion in traditionally unbanked segments of society;
- Providing greater access to beneficiaries via the most pervasive channel in Jamaica (90% PATH beneficiaries own mobile phones);
- Stimulating visible increases in GDP by integrating some of the current informal economic activity (currently estimated at 44% GDP) into the formal financial system through a more efficient and accessible national payments system.

Examples from the earlier case studies provide evidence of these benefits opportunities:

For the Mexican Government, the transition to electronic disbursements offered a level of transparency on government payments, streamlining of bureaucratic processes and a reduction in expenditure. It was estimated that efficiency gains from disbursing its social service programs via electronic means would approach 8.3 billion pesos, or 0.1% of GDP. In Brazil, the Government was able to reduce administrative costs from 14.7% to 2.4% of the total grant value by moving to an electronic payment program. The electronic payments ecosystem supporting Bolsa Familia via the correspondent model also stimulated the local economy in the short term through increased spending and consumption in local shops and warehouses. WFP Kenya found e-payments to be 15% cheaper than in-kind food assistance, while also spurring economic activity in local markets in each county, reducing leakage, and improving transparency. While the implementation challenges experienced by the Ti Manman Cheri in Haiti are well documented, the decision to use electronic payments, and in particular mobile money payments, was primarily driven by the Haitian government's conviction that electronic payments would offer greater efficiency and transparency as well as cost-saving opportunities.

These outcomes are all consistent with, and resonate strongly with the Government's current medium-term economic policy goals under the current IMF Program (Government of Jamaica 2013):

- Reform of Social Spending: Expenditure rationalisation with respect to social spending will be implemented with a view to effecting savings through enhanced targeting and efficiency without impairing, and possibly improving, social services. The Government of Jamaica is committed to administering a social protection framework that supports the most vulnerable while promoting and facilitating empowerment and self-agency among those who have the ability to become self-reliant and economically productive.
- Public Sector Reform: The government is committed to improving the efficiency, quality, and cost effectiveness of the public sector.

PROSPECTIVE PAYMENTS SERVICES PROVIDERS

The commonly cited benefits of mobile G2P payments for 3rd party payments service providers include:

- Providing a basis for channel diversification, using the mobile phone as a lower-cost, more pervasive service delivery channel
- Expanding the customer base of the participating institutions to the traditionally unbanked market segment (45% PATH beneficiaries are unbanked / 35.7% Jamaican are unbanked)
- Providing opportunities to cross-sell financial products and services to a new market segment

These benefits are especially relevant to Commercial Banks that have found it prohibitively costly to serve this segment of the market using conventional banking channels. A powerful impetus for the implementation of a Mobile Payment System has been the latent demand arising from "access-to-financial-services" deficits, especially visible in country cases where large numbers of people have limited access to existing payment channels due to the high cost of access and/or an absence of widespread ownership of money transfer accounts¹¹. Table 1 (on reverse page) provides a comparison of the financial infrastructure of Jamaica compared to three of the countries studied, which have transitioned to the use of electronic government payments in an effort to improve financial inclusion.

Aside from the traditional banks, other non-financial institutions such as mobile network operators (MNOs) see mobile payments as an opportunity to access new markets and diversify their services portfolio with value-added services. In Jamaica's case, both MNOs, FLOW and Digicel, as well as non-banking financial institutions such as Jamaica National and Grace Kennedy/Western Union sense and are actively pursuing diversification opportunities in the mobile payments market.

However, as several of the example case studies have illustrated, the business case for Payments Services providers in delivering G2P payments is not always a compelling one. Both Digicel and Unibank struggled to articulate a clear business case for the program, although for the Unibank subsidiary, Unitransfer, the TMC program appeared to be a better fit for their more established, standard money transfer business model. For both, the primary motivation for partnering with the Government of Haiti in the delivery of payments for the Ti ManMan program had stronger political, social and strategic rationale, for longer term outcomes.

Similarly in Kenya, both Equity Bank and Cooperative Bank did not identify the Cash for Assets (CFA) program or the client base as financially attractive. However both cited CFA as a strategic case for partnership. However, they foresaw benefiting from additional valuable partnerships with WFP and/or other electronic payments (e-payments) programs and anticipated a business case at both the strategic and portfolio levels.

It is clear, from these cases, that the potential and the opportunity for scaling the mobile payments infrastructure beyond the immediate G2P program is an essential driver of business rationale for payment service providers. For cases like Jamaica, where small market size and the transaction hazard of mandatory investments in interoperability often leads to market failure, the role of Governments investing in a common interoperable infrastructure, both in terms of the platform and as an anchor client, can provide the necessary stimulus for the rapid scaling of the mobile financial services ecosystem.

¹¹In Jamaica's case, 85% adults have limited access to low-cost, efficient and easily accessible payments channels (Elliot 2011)

Table 1: Country Backgrounds – Existing financial infrastructure

	JAMAICA	BRAZIL	MEXICO	KENYA
Population (in millions)	2.7	193	109	45
GNI per capita (US\$ PPP)	8,490	14,750	16,110	2,780
% Banked	66	43	25	42
Bank branches and ATMs/100,000 people	6.64	122	54	5.2
Are banks allowed to use agents for deposits and payments?	No	Yes	Yes	Yes
Are KYC procedures tiered for low-value accounts?	No	Yes	Yes	No

PERSPECTIVES FROM PATH BENEFICIARIES

The commonly anticipated benefits of mobile G2P payments for the beneficiaries themselves, include:

- Increased timeliness and convenience in receipt of benefits;
- Reduced fraud and security risks to their benefits entitlements;
- Increased financial inclusion and access to credit and other financial services;
- Reduced transaction and opportunity costs associated with transportation and queuing time to access benefits.

In practice, some of these expected benefits were mitigated by poor implementation execution. The case of Haiti’s Ti Manman Cheri demonstrated clearly how the absence of adequate agent penetration island-wide and poorly designed support systems, made recipients’ experience with mobile money a frustrating one with overburdened agents, long lines and frequent payment delays. Whereas in Mexico’s case subsequent studies showed considerable reduction in transaction and opportunity costs—a 77% savings—by virtue of beneficiaries being able to collect their G2P payment (in cash) at a pay-point no further than 4km away from their homes. Recipients’ satisfaction with and trust in the delivery mechanism was reported to be upwards of 97%.

The financial inclusion benefit has proven to be the most elusive across all of the example cases. In many cases, either through lack of awareness and financial education, or poorly designed instruments and policy, many recipients still withdrew the full amount of each payment and did not use their accounts for other purposes.

Notwithstanding the readiness of the payments services infrastructure, one of the critical pre-implementation considerations, as visibly demonstrated by its absence in the Haiti case, is to assess the readiness of beneficiaries for mobile payments by conducting comprehensive market research. This is essential in order to fully assess the risks and inform the program approach and planning for mitigation activities. According to a study by Mastercard¹², “The most advanced infrastructures in the world, with responsive legal systems, mature economies, and sophisticated technology networks, may be fertile ground, but until consumers embrace mobile payments, that ground will remain fallow. Consumer familiarity, willingness, and actual usage are necessary conditions for mobile payments to take off.”

¹²Mastercard Worldwide; (2012). The Mobile Payments Readiness Index: A Global Market Assessment. Retrieved from <http://mobilereadiness.mastercard.com/reports/downloadsingle.php?c=pdf/glb.pdf>

“The most advanced infrastructures in the world, with responsive legal systems, mature economies, and sophisticated technology networks, may be fertile ground, but until consumers embrace mobile payments, that ground will remain fallow. Consumer familiarity, willingness, and actual usage are necessary conditions for mobile payments to take off.”

In Jamaica’s case, several recent studies have been conducted to assess the attitudes and readiness of PATH beneficiaries for the delivery of benefits using mobile payments (Elliot 2011; McNaughton and Brown 2013). As part of the 2011 UWI-led national survey exploring the economic opportunity for the broad-based introduction of mobile financial services in Jamaica, a segment of this survey targeted PATH beneficiaries. Of the 254 respondents who completed the national survey, a significant 33% expressed dissatisfaction with the current delivery methods. The perceived benefits of mobile payments by these survey respondents pertain to the increased speed and convenience of receiving payments as illustrated in Figure 4 below.

Figure 3: Expected Benefits of Mobile Payments

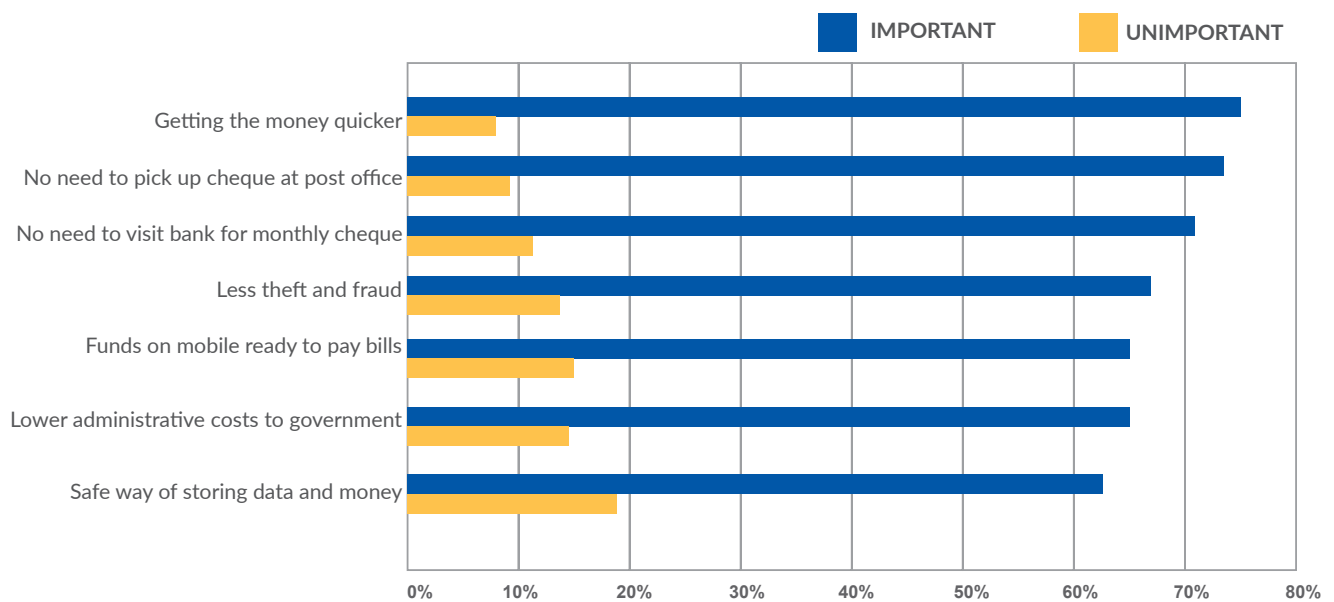
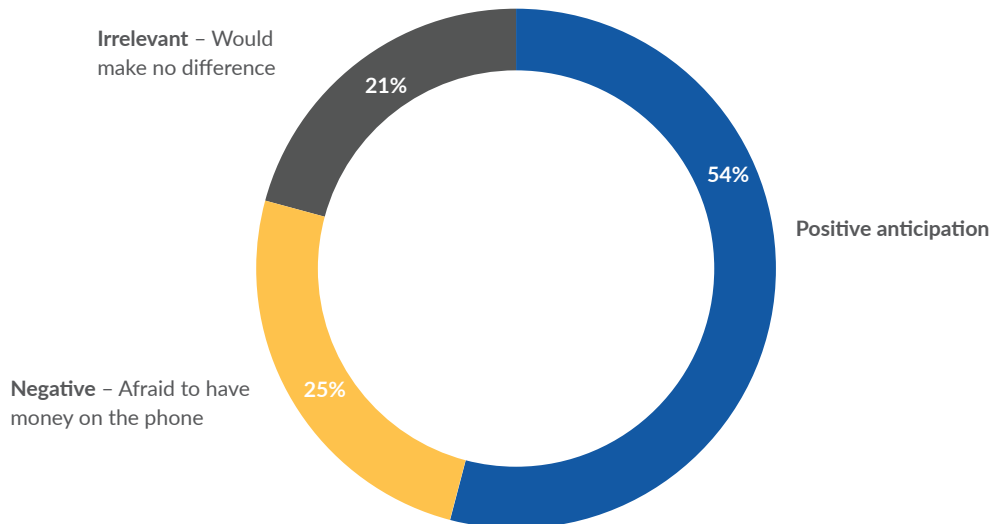


Figure 4: Attitude towards receiving PATH payments by phone



In general, the majority of PATH respondents (54%) had a positive attitude to the prospect of receiving their PATH benefits via the mobile phone, however a considerable number of persons were either ambivalent or had negative perceptions of such a service (See fig 5).

In the Focus Groups¹³ conducted in the previous studies many participants viewed the current process of receipt of payments through the Post Office via check as a tedious and often unpleasant experience and most being very responsive to the idea of using the mobile phone for the receipt of payments, once the options and the instructions for use were clear and not complex. Key insights from these studies which should inform the design of an electronic G2P program include the following:

- The current process of receipt of payments via check is a tedious process for many beneficiaries and one that often negatively impacts their self-esteem;
- Notwithstanding latent dissatisfaction, the electronic card method of payment introduced by NCB only realized an adoption rate of 9% in five years since its introduction. Poor communications and lack of awareness and understanding of the merits have impeded the take-up;
- The mobile phone is an essential, versatile and highly regarded tool by most respondents. The average user is very comfortable and proficient with the use of SMS text, which suggests that the learning curve to accessing financial transactions using SMS would not be a difficult barrier;
- Although age is an influencing factor, most respondents were very responsive to the idea of using the mobile phone for receipt of payments, once the options and the instructions for use were clear and not complex.

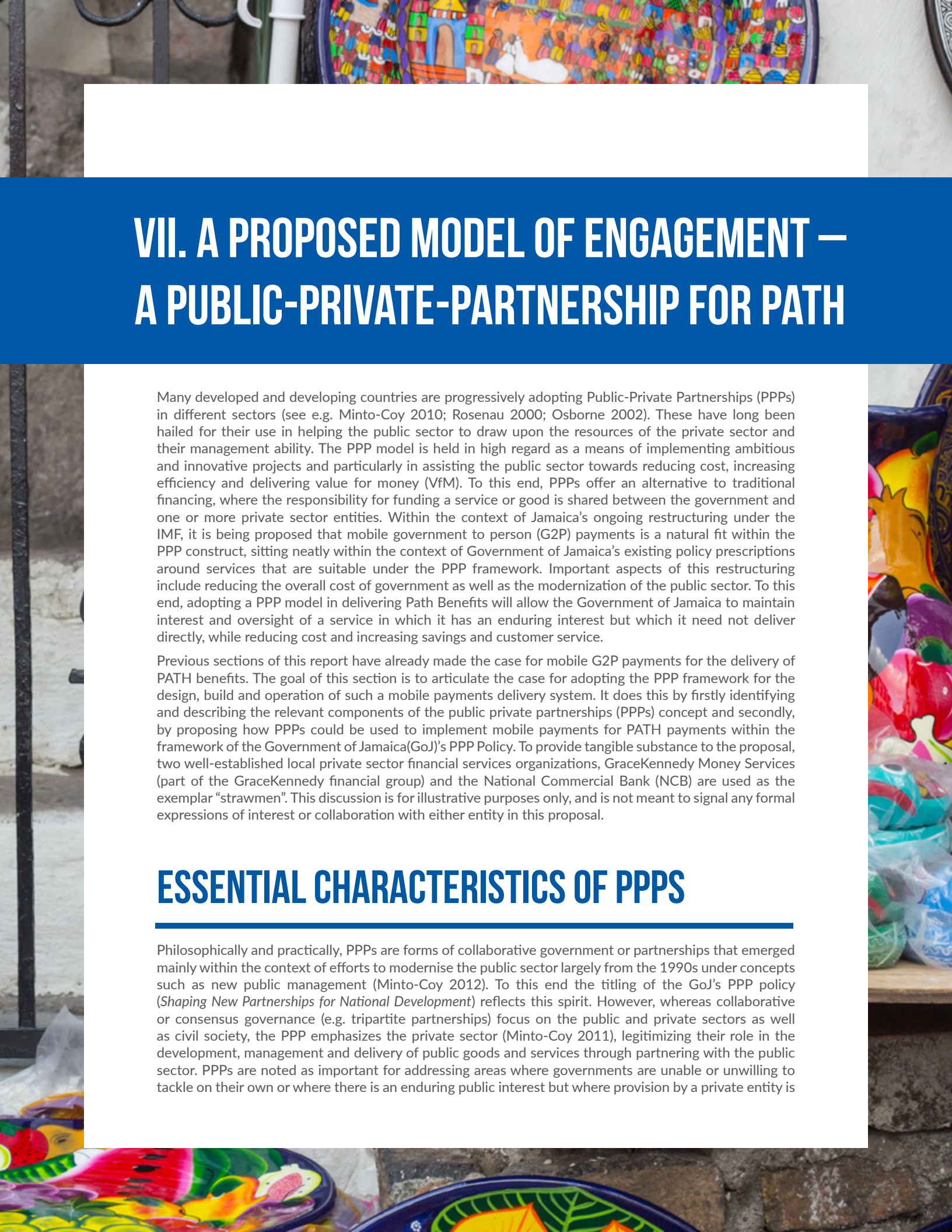
RISKS, BARRIERS AND IMPERATIVES

Notwithstanding the benefits articulated, and the strong international consensus towards the comparative merits of, and shift towards electronic G2P systems, the cases discussed in Section IV demonstrate clear and present hazards that could mitigate or completely erode these anticipated benefits. Fortunately these cases and other emerging examples provide increasing evidence of guidelines and “best practice” in the implementation of these systems. Several of these hazards and lessons have been articulated in Section V.

In particular, we have highlighted the challenge of market failure that confronts prospective Payments Service Providers if electronic G2P systems don’t scale beyond the narrow boundaries of the delivery of social benefits to become the cornerstone of a national payment system. This is especially important in the naturally small markets found in Jamaica and the Caribbean, where an interoperable mobile payment system is an imperative to overcome these market barriers and likely will require active Government intervention, strategic partnerships and alliances between public and private sectors.

Public-private partnerships (PPP) have emerged within the last two decades as an increasingly attractive and viable response to some of the governance challenges and market failures inherent in many social and infrastructure service areas (Nelson 2013). This approach is particularly compelling in cases where neither publicly subsidized nor for-profit models on their own, seem to have the ability to scale-up the inherently appealing developmental impact of initiatives such as electronic G2P payments systems. In the following Section VII, we explore the application of the PPP model to the prospects for the mobile delivery of PATH payments and its scale-up as the catalyst for a national mobile financial services ecosystem.

¹³Previous Focus Groups were limited to urban participants. This research extends the analysis to rural communities in order to account for variances in access to banking services and infrastructure. Those findings are reported separately.

The page features a decorative background with colorful ceramic plates and a blue banner. The banner contains the title 'VII. A PROPOSED MODEL OF ENGAGEMENT — A PUBLIC-PRIVATE-PARTNERSHIP FOR PATH' in white, bold, uppercase letters. The background includes a large, colorful ceramic plate with a scene of people and buildings, and several smaller plates with various designs, including a horse and a fish. The overall aesthetic is vibrant and traditional.

VII. A PROPOSED MODEL OF ENGAGEMENT — A PUBLIC-PRIVATE-PARTNERSHIP FOR PATH

Many developed and developing countries are progressively adopting Public-Private Partnerships (PPPs) in different sectors (see e.g. Minto-Coy 2010; Rosenau 2000; Osborne 2002). These have long been hailed for their use in helping the public sector to draw upon the resources of the private sector and their management ability. The PPP model is held in high regard as a means of implementing ambitious and innovative projects and particularly in assisting the public sector towards reducing cost, increasing efficiency and delivering value for money (VfM). To this end, PPPs offer an alternative to traditional financing, where the responsibility for funding a service or good is shared between the government and one or more private sector entities. Within the context of Jamaica's ongoing restructuring under the IMF, it is being proposed that mobile government to person (G2P) payments is a natural fit within the PPP construct, sitting neatly within the context of Government of Jamaica's existing policy prescriptions around services that are suitable under the PPP framework. Important aspects of this restructuring include reducing the overall cost of government as well as the modernization of the public sector. To this end, adopting a PPP model in delivering Path Benefits will allow the Government of Jamaica to maintain interest and oversight of a service in which it has an enduring interest but which it need not deliver directly, while reducing cost and increasing savings and customer service.

Previous sections of this report have already made the case for mobile G2P payments for the delivery of PATH benefits. The goal of this section is to articulate the case for adopting the PPP framework for the design, build and operation of such a mobile payments delivery system. It does this by firstly identifying and describing the relevant components of the public private partnerships (PPPs) concept and secondly, by proposing how PPPs could be used to implement mobile payments for PATH payments within the framework of the Government of Jamaica (GoJ)'s PPP Policy. To provide tangible substance to the proposal, two well-established local private sector financial services organizations, GraceKennedy Money Services (part of the GraceKennedy financial group) and the National Commercial Bank (NCB) are used as the exemplar "strawmen". This discussion is for illustrative purposes only, and is not meant to signal any formal expressions of interest or collaboration with either entity in this proposal.

ESSENTIAL CHARACTERISTICS OF PPPS

Philosophically and practically, PPPs are forms of collaborative government or partnerships that emerged mainly within the context of efforts to modernise the public sector largely from the 1990s under concepts such as new public management (Minto-Coy 2012). To this end the titling of the GoJ's PPP policy (*Shaping New Partnerships for National Development*) reflects this spirit. However, whereas collaborative or consensus governance (e.g. tripartite partnerships) focus on the public and private sectors as well as civil society, the PPP emphasizes the private sector (Minto-Coy 2011), legitimizing their role in the development, management and delivery of public goods and services through partnering with the public sector. PPPs are noted as important for addressing areas where governments are unable or unwilling to tackle on their own or where there is an enduring public interest but where provision by a private entity is

more efficient (see Minto-Coy 2012; Ghobadian et al. 2004; Carino 2003; Sullivan and Skelcher 2002; Steele 2000).

One of the most attractive features of the PPP model is that it has brought innovation in the funding, management and delivery of goods previously thought to be solely the preserve of government. Local and national governments globally have found themselves faced with an increasing number of demands and responsibilities. At the same time, they are constrained by budgets, which remain relatively inadequate.

As such, PPPs have emerged as modern responses to the challenges of public-sector financing, widening the source for capital beyond borrowing or taxation, as well as options open to government beyond government-only or privatisation; all features which remain attractive in the present environment in which the GoJ operates.

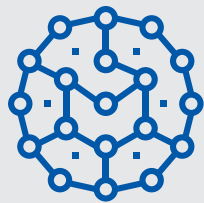
As such, PPPs have emerged as modern responses to the challenges of public-sector financing, widening the source for capital beyond borrowing or taxation, as well as options open to government beyond government-only or privatisation, all features which remain attractive in the present environment in which the GoJ operates. Indeed, features which tend to typify the private sector, including the for-profit motive and the drive for innovation towards cost reduction and improved performance are then brought to bear in the partnership. The result tends to be a positive influence on the overall performance of the public sector, even as the latter is important in ensuring that the sensitivities which can govern the provision of public goods and services such as social welfare payments are adhered to through its involvement.

In essence, PPPs include two or more parties, at least one of which is from the public sector and the other(s) from the private or non-government sectors. In public-private partnerships, each partner contributes material or non-material resources to the partnership, is a principal in the project, contracting their participation for their own account regarding the project and other participants, and bears shared responsibility for the produced outputs. The partnership is a long-term contractual cooperation, with terms of 25 to 30 years not being unusual, but with a defined time period after which the arrangement ends. The public partner usually defines the aims and many of the parameters of the project and undertakes to use the project output (e.g. a building or service) for the contract-envisaged purpose, while the private partner shares much of the risk that would otherwise be taken by the public sector. The contract defines demanded performances as the final, output specifications and includes all phases of the project, sharing of investments, responsibilities and credits for as long as the contract is valid (Rakić and Radjenović 2011).

An alternative to the contractual model of PPPs is the institutional model, wherein the public sector and private sector partners initiate and operate a new institution jointly or the partners take over the operation of an existing institution for mutual benefit. Indeed, the Institutional model has had some success in Jamaica (see Box 1). The adoption of a PPP framework in facilitating mobile path payments is therefore not outside the bounds of the GoJ, a fact that becomes clearer in light of the policy and institutional framework outlined in the PPP policy, discussed in the next section.

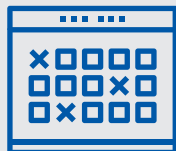


BOX 1 Example of a PPP in Jamaica - The Multilink Network



IN JAMAICA, THE MULTILINK NETWORK, WHICH CONNECTS APPROXIMATELY **700 ATMs** and **10,000** point-of-sale (POS) terminals

IS AN EXAMPLE OF COLLABORATION AMONG COMPETING ENTITIES FOR MUTUAL BENEFIT.



THE MULTILINK NETWORK WAS SET UP IN

1997

to serve as a common payments network for

10 FINANCIAL INSTITUTIONS



WITH **7** SHAREHOLDERS including the Jamaica Cooperative Credit Union League and the largest commercial banks, and three licensees.

A COMMON PAYMENTS NETWORK ELIMINATES THE NEED FOR EACH SHAREHOLDER TO CREATE THEIR OWN.



and thus reduces the cost that each shareholder then has to pass on to their customers for the convenience of ATMs and POS terminals islandwide.



EACH SHAREHOLDER AND LICENSEE PAYS A FLAT FEE TO USE THE NETWORK,

which is administered by a management company called JETS.

THE CASE FOR THE PUBLIC-PRIVATE PARTNERSHIP MODEL FOR THE DELIVERY OF PATH BENEFITS

PPPs have been demonstrated as having certain desirable attributes many of which are particularly relevant to the Jamaican context. This following discussion indicates how these attributes are relevant to its use in facilitating mobile payments of PATH Benefits in Jamaica.

Relationship to Other Policies and National Goals: The introduction of a PPP model in mobile path payments has the potential of helping the GoJ to advance towards the delivery of a number of practical policy goals as it relates the growth and development envisioned under policy documents, such as the current IMF MEFP program as articulated earlier (pp 6), and Jamaica's Vision 2030. Indeed, with the recognised need to unlock innovative and entrepreneurial capacity within society, continue to improve the interface between the private and public sectors, PPPs offer the the Jamaican private sector more ways of actively partnering with the government in the delivery of key public goods and services. Furthering engagement with the private sector is a desired outcome which can be produced through underscoring the desire to develop a whole society approach and engagement strategy that is more suitable in addressing the multiple policy issues that are faced by a modern government. Utilising the PPP model in delivering mobile PATH payments also helps to demonstrate the uses of ICTs and technology to a wider cross-section of the population and paving the way for financial inclusion, while embracing technology in this regard, is a definite positive towards demonstrating the role of government as a user of ICT-enabled innovations.

PATH Payments – Enduring Government Interest but no Need for Direct Provision: The PPP Policy establishes that PPPs are to be used for services or activities in which the Government has a continuing interest but need not provide directly. An ongoing consideration that has arguably been heightened under the IMF restructuring programme is the areas in which the GoJ need to be actively involved in and the nature of its involvement. Indeed, while the issue of social benefits is sensitive given its impact

on some of the most vulnerable segments of the population, it is accepted that government need not be directly involved in all aspects of the social security system. This includes the last mile, i.e. Actual payments to beneficiaries with the administration of PATH payments falls within this scope. More largely, such a consideration goes beyond the confines of the IMF agreement. That is, there has long been recognition of the need for re-consideration of government involvement in the provision of certain services, while the current economic environment suggests the need for greater contemplation of PPPs and ways in which this can be introduced towards rationalising the public sector and increase financial management towards debt-reduction as long-term goals.

Existing Institutional and Policy Framework for a PPP in Mobile Payment of PATH Benefits: Within this context too, it is important to note that PPPs are instruments and means to an end (for improving the performance of the public sector and improving public goods and services) and are not only the preserve of developing but developed nation-states. As such, it is a legitimate policy option open to innovative, forward-thinking governments world-over. Within this context, the Government of Jamaica (GoJ) has indicated its stance through its adoption of a PPP Policy (Shaping New Partnerships for National Development: Policy and Institutional Framework for the Implementation of a Public-Private Partnership Programme for the Government of Jamaica: The PPP Policy) in 2012.

The policy affirms PPPs as critical components of the short and medium-term economic programme in terms of its ability to stimulate growth with the introduction of a mobile G2P for PATH holding the potential to stimulate innovation and new service and product developments in the private sector.

Adopting a PPP In Mobile Path Payments meets the Value for Money (VfM) Criteria: The GoJ's stated objective in using PPPs is to achieve greater "Value for Money". This is to be achieved through risk transfer, whole of life costing, innovation, asset utilisation, focus on service delivery, predictability of costs and funding, mobilisation of additional funding, and accountability. Sections of this report has already indicated that adopting a PPP for creating a mobile G2P for PATH payments would likely reduce the total cost of G2P. Additionally, the infrastructure for G2P involves payments by one large payer (the Government) to many payees. The involvement of private financial institutions can spread the risk premiums involved in operating and evolving such an infrastructure (as seen in the Multilink example in Box 1) rather than having risks and costs be borne by one payer – in this case the GoJ.

Availability of Qualified Private Parties: This is in fact one of the most desirable and relevant attributes for the adoption of a PPP model in mobile G2P for PATH payments, given the difficulties which can exist in finding credible private partners in a small society. The country's high level of public indebtedness and the structures of the current IMF agreement suggest that the GoJ will be unable to make significant capital injections into the partnership. On the other hand, the GoJ brings to the partnership an established customer base and transaction base in excess of a million micro-payments annually, the funds they currently pay to distribute the payments to the payees, and detailed explicit and implicit knowledge of the PATH payees and beneficiaries.

These assets have been sufficient to attract significant interest from qualified private parties, who might be interested in creating a replica of an institution such as Multilink. More generally, the private sector has increasingly demonstrated its desire to partner with government as seen in the growing experience in integrating social issues in its business planning (e.g. emphasis on social enterprise development, business incubation and funding for MSMEs) and partnering with government in delivering key policy objectives for Jamaica's growth and development. Engagement in this area is also attractive for the private sector given the possibility of increasing its customer base, diversification and the prospects for the development of innovative products.

The GoJ would act as an important but minor shareholder for the development and operation of a mobile payments platform that would also provide valuable opportunities for the private entity to develop competences that would be valuable for branchless banking. Indeed, there exist a number of private entities that already operate in the payments industry. For instance, both the National Commercial Bank (NCB) and the GraceKennedy Money Services (GKMS) already use the Multilink network, one as a shareholder and the other as a licensee. Therefore they already have an understanding of how such an institutional arrangement could work. Edmundo Jenez, General Manager of JETS Limited, which operates the Multilink network, has said that "a shared common platform for the delivery of mobile services would allow more financial service providers to participate in the system and keep the connections costs to subscribers very low (JNBS 2011)." In addition to this implicit knowledge, GKMS and NCB are both technologically-adept organizations with a sophisticated understanding of how technology investments can be leveraged to facilitate financial innovation. Table 2 provides a comparative assessment of their capabilities as prospective local private sector PPP partners in an electronic G2P for PATH proposal.

Table 2: PPP for mobile G2P for PATH – Partner Criteria Chart

PPP FOR MOBILE G2P FOR PATH – PARTNER CRITERIA CHART		
Criteria	National Commercial Bank (NCB)	Grace-Kennedy Moeny Services (GKMS)
Existing Interest/presence in Mobile Payments Services	NCB is the custodial banking partner in the Mobile Money for Microfinance (M3) Pilot Project being implemented by the Development Bank of Jamaica (DBJ) with technology partner, Transcel Limited.	GKMS is one of a few companies with approval from the Bank of Jamaica (BOJ) to proceed with a pilot introduction of a mobile money service. They are currently actively piloting and plans to deploy commercial operations in 2015
Existing relationship/interest with MLSS/PATH	NCB currently administers delivery of PATH payments through debit cards, and processes 9-12% of PATH payments. the debit card service enjoys a high satisfaction ratings from PATH beneficiaries	GKMS recently commenced the payment of the PATH benefits through it's Bill Express outlets islandwide. MLSS indicates that client response has been good.
Island-wide presence to provide Agent support for selected parish pilot and rapid scale-up	NCB has the most extensive network of ATMs and Point-of-Sale merchants islandwide that could become effective Cash-in/Cash-out access points in an Agent network using an interoperable mobile payments system	GKMS, through it's Bill Express and Western Union subsidiaries has a network of over 300 Agents islandwide, 140 of which already have fit and proper certification with BOJ
Transactional capability	NCB has the dominant share of a national payment transaction activity through it's dominant share of credit/debit cards issued and merchant point of sale locations	GKMS is a transactional business model and drives high-volume transactions through it's Western Union, Bill Express and Fx Traders subsidiaries
Significant existing base of financial services customers	Both companies are dominant players in their respective domains (core banking & financial transactional services respectively) and have significant customer bases	
Strategic relevance to existing Business Model(s)	NCB, like many other commercial banks, sees the mobile payments channel and traditionally unbanked customers as an important extension to it's core banking services	GKMS maximizes the returns from it's extensive Agency network by transaction scale and diversity. Increased Cash-in/ Cash-out activity associated with mobile payments service
Culture of Corporate Social Investment and Strategic Philanthropy	Both companies have a strong tradition of corporate social responsibility realized through active Foundations, and are generally well-regarded corporate citizens	
Partnering acumen and Record fo Multi-stakeholder collaboration	NCB is a founding partner in the Multilink network which is a major multi-stakeholder initiative and a good example of collaboration among competing entities for mutual benefit.	GKMS has demonstrated strong partnering credentials in their international markets through various channel partnerships such as Western union and Bill Express, etc.

Mobile Path Payments Meets PPP Criteria Under the PPP Policy: Another major point is that the Policy notes that the service need not be a new one as would be the case with PATH payments. As such, a private entity can be engaged to manage or expand an existing service again making room for the development of mobile G2P for PATH as a PPP with the real innovation and cost savings coming in the method of delivery.

Prospects for Product and Service Innovation and Competition: Further, because of rapidly evolving technology and the competitive nature of the payments industry locally and globally, financial institutions have significant incentive to continually evolve their knowledge of the payments industry and implement innovative mechanisms to improve service delivery and increase cost-efficiency.

Improving Government-Citizen Interface: Service improvements also come in the form of reduced transactions costs for recipients and improved quality in the government-citizen/client interface from increased ease in accessing benefits.

In summary, adopting a mobile G2P for PATH under the PPP model meets the 'value drivers' or the ways in which the service can deliver VfM. Adapting the PPP Value Drivers framework (in DBJ/GoJ 2012b:10) used in the Policy, the following value drivers described in Table 3, would obtain in the Jamaican context:

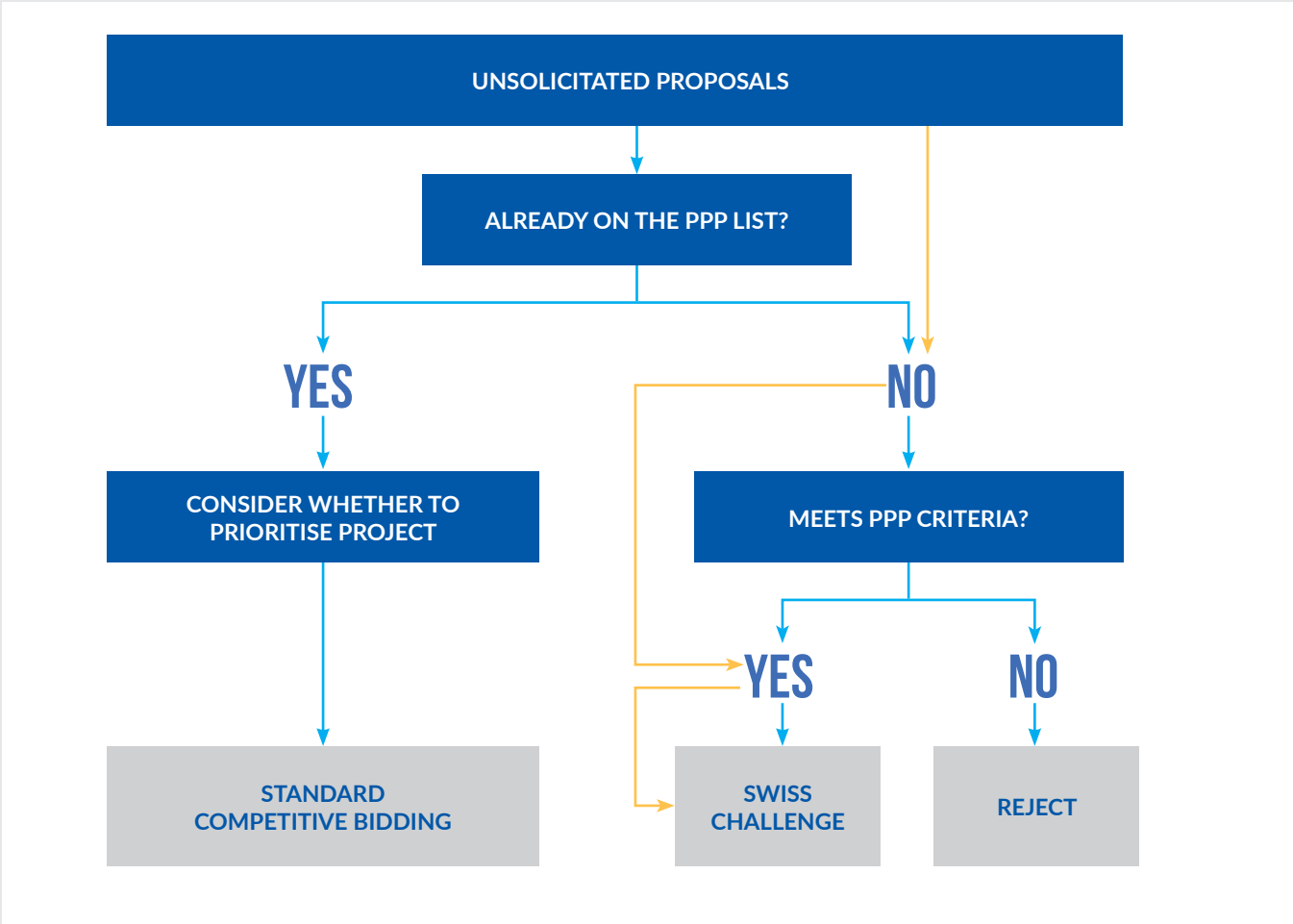
Table 3: Value Drivers in a PPP for Mobile PATH Payments

VALUE DRIVERS IN A PPP FOR MOBILE PATH PAYMENTS	
Value Driver	Explanation
Risk Transfer	Allocation of payments to experienced private sector entity(ies) = risk & cost reduction for government
Whole-of-life Costing	Allowing the design, construction, delivery and maintenance of the mobile payments structure allows for cost reduction with private entity incentivised to integrate innovations from the competitive electronic payments industry for cost-savings
Innovation	See above, but also through competitive procurement which incentives firms to find novel ways for delivering specified outputs as opposed to focusing on inputs.
Asset Utilisation	Opportunities for the private entity to use the payments system for additional revenue streams, as well as for governments to consider the utilisation of the platform for the delivery of other types of payments and benefits overtime
Focus on Service Delivery	Government can engage the private entity to deliver PATH payments at specified time with the private entity being free to focus on delivering payments unhindered by many of the challenges within the public sector.
Predictability of Costs & Funding	Complete budgeting and costing of a mobile PATH payments framework, including its delivery and maintenance allows for predictability and minimises the risk of funds not being available to actually maintain the service, once the platform has been developed
Mobilisation of Additional Funding	Users can be charged a minimal cost for receiving their payments via the mobile channel representing a source of additional funding for the private enterprise or for government to be used elsewhere.
Accountability	The GoJ will be able to demonstrate accountability, managing the private entity against set performance requirements and can withhold payments to the private entity where breaches occur
Public Private Interface	For the Jamaican context, where the private and public sector has not always had a friendly relationship, an additional value driver is the prospect for improved relations and engagement between the private and public-sector towards the more efficient utilisation of the assets of each sector for the national good.
Government Client Interface	Allowing government to focus on those aspects of the social security system that it has to be involved in directly and acting as a regulator or oversight body, allows it to improve its engagement with its citizen/public

PPP PROPOSAL DEVELOPMENT FOR MOBILE PATH PAYMENTS

As a starting point, the use of a PPP arrangement for the delivery of PATH benefits is not currently under active consideration by the GoJ. However, the policy and institutional framework allows for unsolicited proposals to be submitted in writing to the Privatisation and PPP Unit within the Development Bank of Jamaica, one of the two operating units of the PPP¹⁴. The following proposal is developed in line with the guidelines for unsolicited proposals. Indeed, as suggested above, mobile G2P for PATH fits the criteria for inclusion in the GoJ’s PPP Programme. In fact, it sits neatly within the Policy’s definition of an unsolicited PPP as “an initiative that would be successful in the market, and may contain new ideas that add value for both the private sector and the public at large”(DBJ/GoJ, 2012b: 3). Figure 5 below is an adaptation of the Policy’s guide for the treatment of an unsolicited proposal showing the expected route for a PPP in a Mobile Payment of Path Benefits Programme:

Figure 5: Process for Treatment of Mobile G2P Payments under the Existing PPP Policy



Source: Adapted from the PPP Policy (DBJ/GoJ, 2012b: 31).

¹⁴The second is the PPP Node within the Ministry of Finance and Planning.

Following this path and using the guide for the Development of a PPP contained in the Policy, the proposal to create a mobile G2P for PATH PPP proposal is illustrated in Figure 6 below.

Figure 6: PPP Process Overview



Source: PPP Policy (DBJ/GoJ, 2012: 25).



PROJECT IDENTIFICATION STAGE

Given that at this moment, a project to create a mobile G2P for PATH is not on the PPP list maintained for the Cabinet of the Government of Jamaica, there are two alternative routes to traverse this stage. One is for the Ministry of Labour and Social Security to propose the project to the Privatisation and PPP Unit (PPP Unit) within the Development Bank of Jamaica (DBJ). The PPP Unit will then screen the project proposal against the PPP criteria (see Appendix 1) and then determine whether to recommend it to the Strategy Committee for addition to the PPP list, and its prioritization on that list. The alternate route appears from a reading of the PPP Policy framework, to be more expeditious. This route is triggered by a private sector entity (called the Original Proponent) that is interested in being a partner to such a PPP sending a complete business case to the PPP Unit. The PPP Unit will then consider if it meets the PPP Initial screening criteria (see Appendix 2) the project would move on to stage two - the Business Case stage.



BUSINESS CASE STAGE

The PPP Unit will make a recommendation to Cabinet on whether to proceed with the offer. Cabinet decides whether to negotiate with the Original Proponent and if yes, an Enterprise Team is formed for the project. The Enterprise Team will be comprised of senior officials and other specialists with the expertise to ensure that only viable projects that meet the PPP criteria proceed to the third or Transaction Stage, and to guide those projects to a successful close.

The Enterprise Team negotiates with the Original Proponent a contract that would be acceptable to both parties, and then the PPP Unit and MoF Node check whether the contract would meet the approval criteria at the Business Case stage. Provided the outcome of this scrutiny is positive, a recommendation is made to Cabinet to proceed to the Challenge process. If Cabinet disagrees, the original offer is rejected. If Cabinet agrees, the project moves to the Transaction stage of the PPP process and the Challenge process is initiated.



TRANSACTION STAGE

The opportunity to challenge the offer is advertised in the same way that an opportunity to bid on an RFP is advertised. Potential challengers are required to register with the PPP Unit within one [1] month of the advertising of the challenge opportunity. Registered challengers are provided at a minimum with a complete description of the services to be provided; the government support that will be offered; the risk allocation; the payments made to or from the government; and the key contractual terms that have been negotiated. Other documents that form part of the negotiated outcome with the Original Proponent – minus trade secrets – may also be shared with the challengers. Challengers are given three [3] months from the date of advertising to submit their 'challenge bid' to the PPP Unit.

Challengers must offer to supply: the same or better services, at the same or lower cost, with no increase in risk to the government or public, offering equivalent assurance on quality, performance guarantees, and financial standing. If warranted and appropriate, the Enterprise Team may describe the information that must be supplied, the conditions that must be met, and the form a challenger's proposal must take. The Enterprise Team may also specify evaluation criteria in advance. If no evaluation criteria are specified in advance, the 'Best Challenger' will be the one that provides at least as good a service and other conditions as the original proponent, at the lowest cost to government (or with the highest payment to government).

After the Best Challenger is selected, the Original Proponent will be notified of the Best Challenger's offer, and given up to one month to match the offer. If the Original Proponent matches or betters the Best Challenger's offer, the contract will be awarded to the Original Proponent, on the terms offered. If the Original Proponent chooses not to match, the Best Challenger will be recommended for the awarding of the contract, on the terms proposed in its Challenge.

Once the Enterprise Team has decided on the firm to recommend for contract award, its recommendation will be submitted to Cabinet, along with all the information that would normally be submitted after evaluation of a tender process, and Cabinet will make a decision. The contract will then be signed, marking the end of the Transaction Stage and the beginning of the final stage, the Contract Management Stage. This is when the PPP itself begins, and the project will be implemented and monitored as with other PPPs.

In Appendix 2, we provide a high-level description of how the case for the proposed mobile G2P for PATH PPP proposal would meet the criteria for the Initial Screening step in the Project Identification stage. The scope of this section and this document does not go beyond the Project Identification stage. Further articulation of the Business case, Transaction and Contract phases as required for the PPP process (Fig 6), would clearly require active engagement with prospective private sector partners as the "original proponents".

CONCLUSIONS AND CAVEATS

This section has demonstrated the benefits of PPPs generally, and particularly as it relates to its adoption in facilitating mobile payment of PATH benefits in Jamaica. In addition to demonstrating a particular structure for this model, the presentation has suggested a neat fit between PPP mobile PATH payments and the GoJ's existing directives contained in the PPP policy.

The suggestion throughout is not that PPPs are without challenges and pitfalls (see e.g. Grimsey and Lewis 2002), that may arise due to unclear goals, different organisational goals and philosophy, resource constraints, among others (McQuaid 2002). The Haitian case illustrates several of these hazards. In a developing and small state setting such as Jamaica, other issues may be sourcing suitable partners given the relatively small number of private actors and experiences. However there is clear evidence that there are already existing players with the wealth of experience, capital, and a demonstrated sensitivity to the public good. While, the service could be delivered by one private entity, there is also scope for a competitive approach not only nationally but also on a parish by parish or county level to facilitate more players and greater innovation especially given the BOJ's mandate of interoperability of mobile payments systems.

The monitoring and regulatory role of the state will be critical under the proposed model, given the nature of the service and clientele, and particularly given that the private entity cannot directly be made politically accountable. As such, the state has to be willing and able to perform that intermediary role between citizens and the private service provider, through sound procurement and contract enforcement standards. Adherence to the current PPP procurement procedures will go some way in assuring this obligation.

EPILOGUE: A COMPELLING CASE

The global consensus regarding the comparative merits of, and shift towards the adoption of electronic Government-to-Person (G2P) payments has gathered considerable momentum with several country cases undertaking the transition from cash to electronic payments in recent years. The emergence of the mobile phone as a low-cost, pervasive payments channel has provided significant impetus to this movement, largely fuelled, and perhaps seduced, by the enormous and highly visible success of mobile payments systems in Kenya and the Philippines. Several of the country cases examined through this research have demonstrated that realizing the anticipated benefits of the transition to electronic G2P systems is by no means trivial, and requires strong, active multi-stakeholder engagement from both public and private sector actors with diverse but complementary skills and interests. However, if executed well, the impact on public sector operational efficiency, service delivery and ultimately the socioeconomic well-being of the beneficiaries themselves can be transformational.

Jamaica's PATH, a Conditional Cash Transfer (CCT) program that makes payments to over 375,000 eligible beneficiaries appears to be an ideal candidate for a mobile G2P initiative. Prior studies have consistently articulated the position that the current process of the delivery of PATH payments via check is both operationally inefficient and costly for the public sector and represents a less-than-satisfactory service delivery experience for many beneficiaries that often negatively impacts their self-esteem. The pervasive penetration of mobile phones in Jamaica, including among PATH beneficiaries, and the existence of prospective private sector partners with the interest, technical capabilities, execution capacity, and demonstrated commitment to a corporate social responsibility agenda, provides highly conducive circumstances for undertaking such an initiative. There is strong resonance with Jamaica's current Public-Private-Partnership policy and procedural framework which situates PPPs as a mechanism for public sector reform and stimulating economic growth in the Jamaican economy.

Effecting the transition from cash to electronic G2P payments for the PATH program is reasonably justifiable on its own merit. However there is a larger narrative that this study envisions and seeks to articulate. The transformational impact that the M-PESA mobile payments system had in Kenya is a social and economic phenomenon that is the envy of both the developing and the developed world. Jamaica currently exhibits many of the pre-conditions for realizing such a mobile payments revolution: high mobile penetration; a traditional banking infrastructure that provides limited access to low-cost, efficient and easily accessible payments channels for the majority (85%) of citizens; an emerging mobile ICT innovation ecosystem that demands a readily accessible payments channel. The missing pieces compared with the equivalent M-PESA "perfect storm" are: adaptive and responsive Regulation and Scale. We believe the Government of Jamaica has a compelling opportunity to provide the stimulus for a robust and scalable mobile payments ecosystem by way of active policy and operational intervention. The adoption of a PPP-based mobile payments system for the delivery of PATH Benefits where the GoJ becomes an active partner and anchor client could become the cornerstone of a national payments ecosystem and stimulate the scale-up of mobile financial services in Jamaica, approximating the initial scale and demand effects that propelled M-PESA in Kenya. It is unlikely that any other pure market-led configuration could realize a similar outcome on its own.

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APPENDIX 1: OPERATIONAL BENEFITS ANALYSIS – PATH

According to prior studies conducted (MLSS / Elliot), the current PATH payment system is time-consuming, physically and mentally exhausting and administratively costly for the Government.

“The check/voucher payments channel is a more tedious, complex, and labour intensive one that does not end with the production, distribution, and reconciliation demands; there are additional considerations related to storage and privacy. These costs are not lost on the Government of Jamaica which reports that the distribution 6 times per year of approximately 750,000 checks is exhausting, time-consuming, and demanding, requiring 40 members of staff working overtime for at least 7 days per round, or over 42 hours of over- time per year” (See page 82 – Elliot15)

The Bank through which checks are processed, also experiences operational challenges as it relates to the reconciliation of large volumes of cheques on a bi-monthly basis. The findings from these studies (ref: Michael Witter - cited in Elliot16) estimate that the per unit costs under a mobile financial payment system would be considerably lower than the traditional methods, estimating PATH mobile delivery cost at J\$286 per unit per year, compared with \$447 for the existing cheque delivery method. Using this estimated cost saving of \$161 JA per transaction for mobile payments over the cheque method, we developed a simple financial model to evaluate the feasibility of the implementation of Mobile payments from the GoJ’s perspective. The model was based on an initial pilot for 5,000 beneficiaries in Year 1, and a conservative roll-out to the full population over 5 years. The financial assumptions and results are as follows:

Number of Path Recipients converted in Year 1	5,000
Number of Path Recipients converted in Years 2-5	377,709
Cost savings per transaction over the cheque method.	\$161 JA
# of times per year each recipient is paid	6
Total Investment in mobile payments system	US\$1,214,385.64
Discount Rate	15%
Internal Rate of Return (IRR)	138%
Net Present Value (NPV)	\$5,272,143.44

The results of the financial analysis show an IRR of 138%. The project will break even in Year 2.5 with an NPV over a 5-year period of \$5,272,143.44. These provisional results show that the project is financially viable and could return significant operational cost savings to the GoJ. These returns are based solely on the projected financial gains in operational efficiencies. The economic benefits that will derive from increased financial inclusion, more efficient commerce and the social innovation due to an interoperable mobile payments system are expected to be considerably greater.

In a further study, McNaughton et al derived an alternative financial model, adapted from a CGAP Report which provided for a comparative evaluation between the three modes of payment disbursement (Check, Debit cards & mobile payments). The analysis suggests that investing in the mobile payments infrastructure could yield an operational cost savings of 25% annually versus 15% savings based on a debit card payments method, both relative to the current check payment method.

The validity of both analyses will depend on the model of implementation of the mobile payments system adopted by the Government of Jamaica; however they do demonstrate the potential for considerable operational cost savings and financial benefits, associated with such an initiative.

APPENDIX II. PPP CRITERIA CHART

PPP CRITERIA CHART		
CRITERION	DEFINITION	EXTENT DEMONSTRATED INITIAL SCREENING
PROJECT IS VIABLE		
Effective in meeting government objectives	The project is an effective method of meeting government objectives, and is consistent with the sector's strategy and relevant development plans.	The project, as proposed for consideration as a PPP, is consistent with the GoJ's overall strategy to use appropriate technology to improve client care and increase financial inclusion while maintaining or reducing the public sector wage bill. It is also consistent with the government's development plans regarding mobile money and the nascent initiatives in that domain.
Technically feasible	The project can be implemented technically, as planned, using known and proven technologies and engineering methods.	The project would be implemented using technologies that have already been proved in other countries, where such systems have been in use for several years e.g. Kenya, Brazil, Mexico, the Philippines.
Legally feasible	All aspects of the project are permitted by law, the parties involved are legally empowered to do what they will need to do under the project, and the agreements that will be required can be made legally binding on all parties concerned.	There is a reasonable expectation that the project is legally feasible. The feasibility is particularly enhanced by the recent and extensive discussion with stakeholders in Government, banking and telecoms led by the Bank of Jamaica of some of the relevant issues surrounding mobile payments, and which resulted in the promulgation of the Guidelines for Electronic Retail Payment Services (2013).
Environmentally compliant	The environmental impacts of the project are in compliance with environmental laws and regulations, or can gain the necessary permits etc. to become compliant.	There is a reasonable expectation that the project is environmentally sustainable.
Socially sustainable	All substantial social impacts of the project (as defined for consideration as a PPP) have been assessed, including providing impacted individuals and groups ample opportunity to provide feedback and voice concerns, mitigation solutions have been incorporated into the PPP contract as appropriate, and the likelihood of any one group blocking or undermining the project successfully is low.	The project provides significant social benefits to a large swathe of the most socially and economically vulnerable segments of the Jamaican population, and is not expected to have any significant negative social impacts. Both GoJ entities such as the Ministry of Labour and Social Security and the private sector partner would take part in public consultations to get feedback from the affected stakeholders and maximize buy-in.
Economically viable	An economic analysis of the project shows the expected economic benefits exceed the expected economic costs, and that the project is the least cost way of achieving the benefits that is practical and feasible.	Based on calculations of the expected costs and benefits over a 10-year lifespan, the project's economic benefits are net positive.

PPP ACHIEVES VALUE FOR MONEY

Project scale is sufficient	The value of the project should be sufficient to invest resources to seek greater VfM through a PPP. Generally, if the net present value of the project's costs is below US\$10 million the transaction costs for both the public and private parties may prohibit achieving value for money. It may be possible to bundle related projects to achieve this threshold.	The project will affect more than 130,000 households and catalyse the use of mobile money across the country. There is every reason to believe that the value of the PPP project will exceed US\$10 million over a 10 year lifespan.
Project duration is sufficient	The duration of the proposed PPP project should be for the life of the project asset and service, or at least 10 years if the project life is longer than 15 years. Projects with durations below 5 years will not generally make good PPPs.	The project will last at least 10 years.
Outputs are clearly specified	Required outputs are defined in clear and measurable terms around which performance mechanisms can be effectively structured.	The Ministry of Labour and Social Security has a well-developed database on PATH payees and beneficiaries – the primary clients this project will address. The nature of this project, together with the PATH database, makes it relatively straightforward to specify the project's outputs in measurable terms.
One or more PPP Value Drivers applies	The PPP increases value through one or more PPP Value Drivers.	The PPP will harness three value drivers: innovation, asset utilization, and focus on service delivery.
		By specifying outputs in the contract rather than prescribing inputs, the government will be able to harness the innovativeness of the private entities that bid competitively to meet the specifications. The private parties will be motivated to use the mobile payments system to support multiple revenue streams, thus driving the adoption of mobile payments throughout Jamaica. The PPP firm will be able to focus on service delivery without the usual constraints of the public sector.
Functions are optimally allocated	Functions are optimally allocated between the private and public sectors, maximising incentives for performance, accountability, and the use of available expertise.	The private entities that have expressed preliminary interest are technologically intensive organizations with lots of experience in the payments space. There is a reasonable expectation that project functions can be optimally allocated.
Risks are identified and allocated optimally	All material project risks have been identified and optimally allocated to the party best able to manage, mitigate or diversify the risk so as to maximise VfM.	The private entities that have expressed preliminary interest are technologically intensive organizations with lots of experience in the payments space. They are already engaged in organizational learning around mobile payments and there is every reason to believe that the project risks can be identified and optimally allocated.
VfM: PPP achieves greater net economic benefit than public provision	An economic cost-benefit analysis indicates that the proposed PPP is likely to provide greater net benefit than public provision.	A cost-benefit analysis strongly suggests that a PPP will provide net positive benefits over a 10 year span. Other countries' experiences strongly support this expectation.

PPP IS MARKETABLE

PPP is a viable "commercial project"

The PPP's revenues cover costs and provide a rate of return that is sufficient for the private sector to consider the project commercially viable.

Preliminary financial analysis suggests that the project's revenues will cover costs and provide a rate of return attractive to private entities.

Market has sufficient capacity and appetite

There is sufficient market interest to generate competitive tension amongst private parties with the capacity and resources to deliver the project.

Already two qualified private parties have expressed great interest.

PPP IS FISCALLY RESPONSIBLE

Likely cost of Government support is consistent with fiscal priorities

The amount of Government support, including scheduled payments and contingent liabilities, under the outcomes most likely to occur (the modal value), is within fiscal priorities.

The amount of government support expected is based on current budget projections to provide the service, regardless of whether the project is realized.

Fiscal risk would not be destabilizing

The expected value of the cost to the Government under the "worst case" scenario would not require the Government to make difficult and unexpected changes in fiscal variables—such as materially increasing debt or taxes, or suffering a drop in its credit rating.

It is proposed that the high level of initial capital needed to invest in the technological platform needed will be provided by the private entities, relieving the government of that risk. The recurrent expenditures to be borne by the government are within the range of expenditures already budgeted to provide the service using the existing modes.

MOBILE PATH PAYMENTS



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