



HAITI MOBILE MONEY

A POINT-IN-TIME CASE STUDY

The November 2010 public launch of mobile money in Haiti was an important milestone for financial services in a country where there are fewer than two bank branches per 100,000 people. The US \$10 million Bill & Melinda Gates Foundation/USAID-funded Haiti Mobile Money Initiative prize led to the rapid design and launch of such services.

After 12 months of operation, service providers and other mobile money actors have a unique opportunity to step back and consider what is required to scale and sustain their services and ecosystem. This case study examines the evolution of mobile money in Haiti and identifies the factors necessary for the market's continued growth, sustainability and financial inclusiveness.

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BACKGROUND

In 2010, the Bill & Melinda Gates Foundation, in collaboration with USAID, launched the Haiti Mobile Money Initiative (HMMI), an innovative program aimed at catalyzing the mobile money market in Haiti. As part of this program Dalberg was engaged to periodically conduct research into the evolution of the mobile money ecosystem. The purpose of this research is to support the development of the mobile money market in Haiti through: i) conducting new primary research; ii) codifying learnings and insights; iii) applying learnings and perspectives from other markets. It is envisaged that this research will support dialogue, learning and reflection in support of a growing, sustainable and financially inclusive mobile money market in Haiti.

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Introduction

The launch of mobile money in Haiti

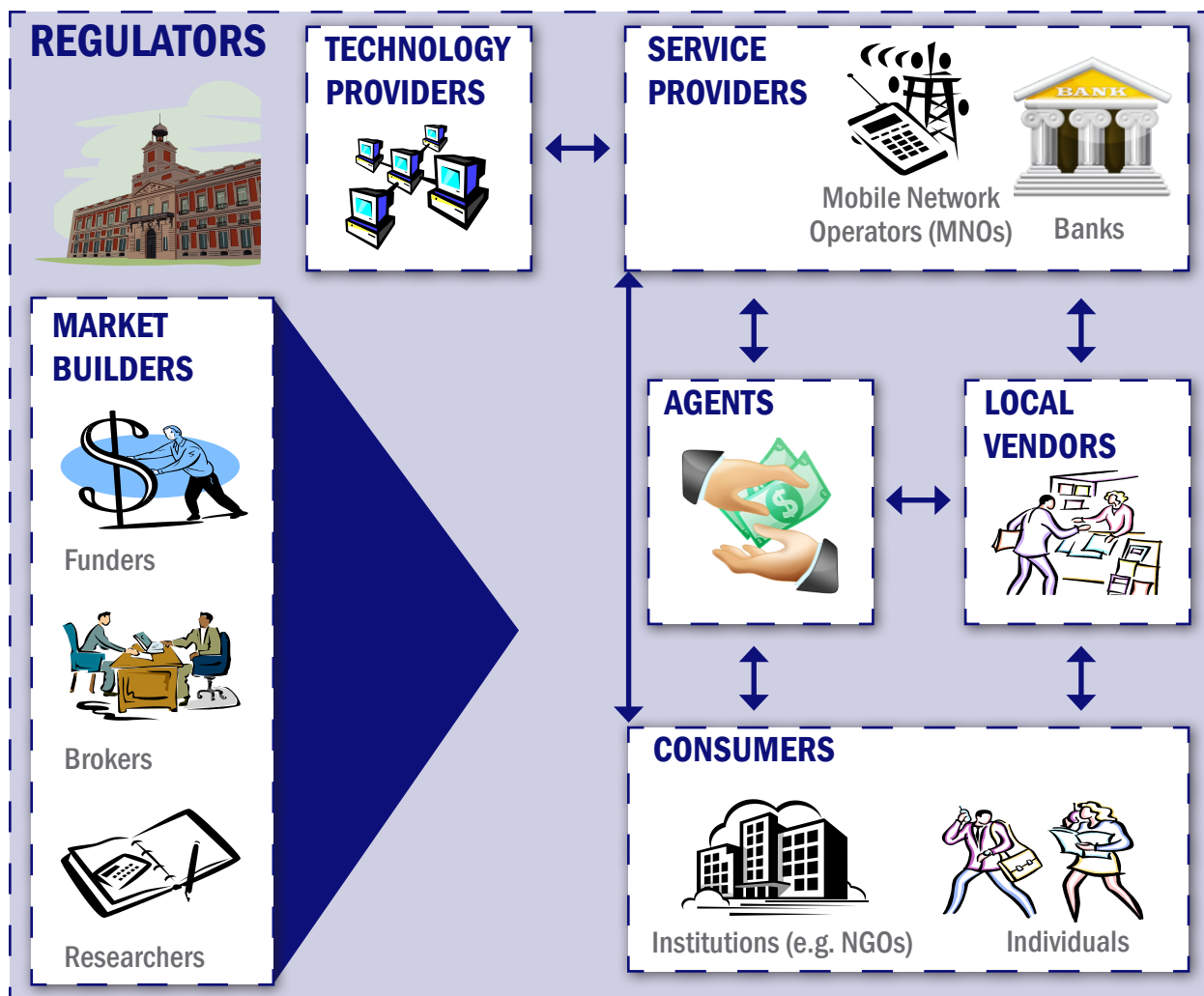
The launch of mobile money in Haiti occurred in a country reeling from a devastating earthquake that destroyed a large amount of the country's infrastructure and degraded an already limited financial services sector. Haiti has one of the lowest rates of access to financial services in the world, with fewer than two bank branches per 100,000 people¹. Banks lend to less than one percent of the Haitian population². In this context, the launch of a new, low-cost, mass-market mobile financial service was seen as an exciting step toward broader financial inclusion.

As donors committed more than US\$ 9.8 billion to “build back better” in Haiti³ and disaster relief efforts began to transition toward longer-term reconstruction, banks and mobile network operators were actively developing new mobile money services. Ten months after the earthquake, two mobile money ser-

vices had been launched: TchoTcho Mobile, a Digicel and Scotiabank product; and T-Cash, a Voila and Unibank product. The two products are similar in design but have charted different courses as the partners involved have employed their unique capabilities and strategies to grow the service. As measured by the number of transactions, growth is happening quickly as investments in customer acquisition, marketing, and promotions begin to pay off. However, it is early days for mobile financial services in Haiti, as an ecosystem emerges to support sustainable delivery of services over time.

The Haitian mobile money ecosystem spans a wide range of players including service providers, technology providers, agents, vendors, consumers, and regulators.

Thanks to the launch of the Bill & Melinda Gates Mobile Money

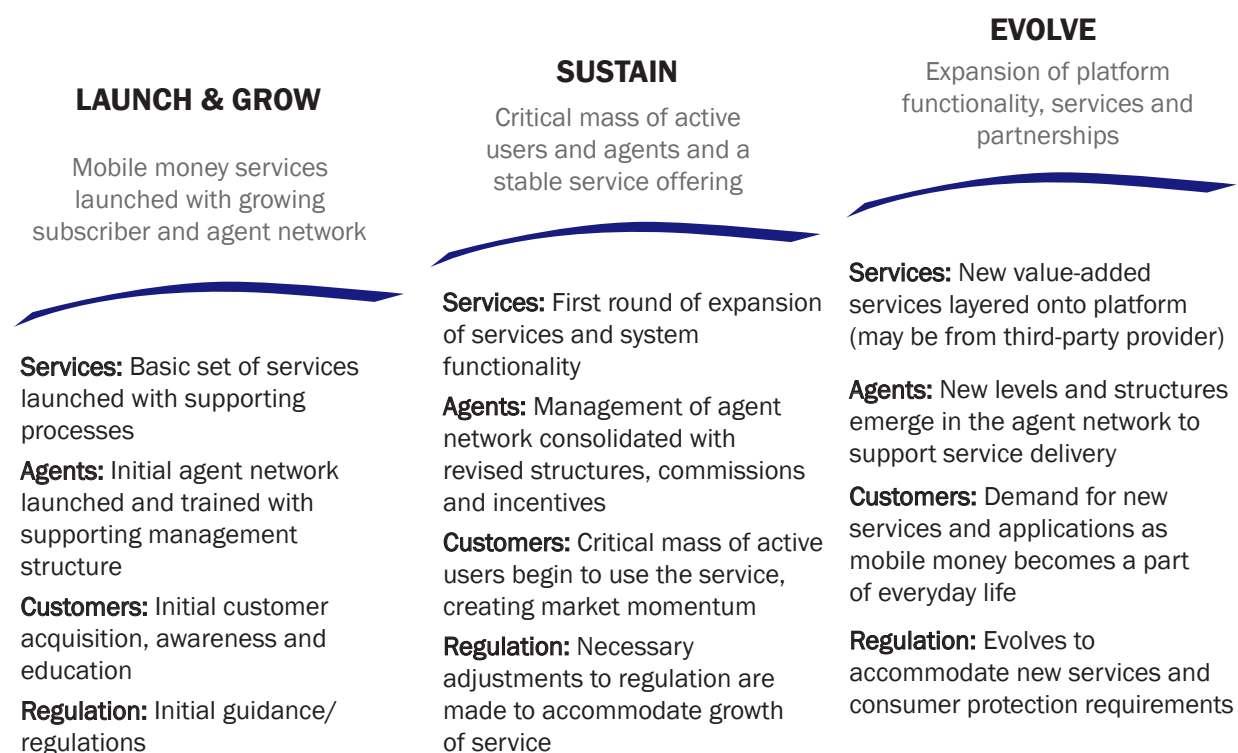


SOURCE: Dalberg analysis

Initiative (HMMI), the ecosystem also has been shaped by a US \$10 million prize designed to kick-start mobile money in Haiti as well as by the prize's technical support component—a USAID-funded team, HIFIVE, that acts as a broker between consumers, regulators, and service providers.

Much has been learned about the development of mobile money eco-

systems over the last five years, as first movers have grown services and catalyzed more than 100 new deployments around the world. What is clear from this experience is that the mobile money ecosystem evolves in stages. The diagram on the next page outlines these stages and highlights some of the key accompanying developments. How ecosystems and service providers move through these phases is



SOURCE: Dalberg analysis

unique to each country and to the levels and nature of investment. While Haiti has experienced a rapid launch and growth of mobile money services, as measured by the numbers of transactions performed, there is more to be done to establish these services. A deeper exploration of the country's mobile money ecosystem suggests there are a number of market fundamentals that need to be established in order to support the transition to a sustainable, profitable set of mobile money services. For service providers that have invested heavily in the first 12 months of operations, the challenge is clear: build a critical

mass of active users around a well-designed and well-supported service delivery model.

This case study provides an overview of the emergence of mobile money in Haiti, describing what has been developed and identifying some of the challenges that service providers, regulators, and donors will likely face as mobile money evolves in the coming 12 months. This is a timely opportunity to investigate these themes as mobile money in Haiti approaches a watershed moment—when the focus will shift from rapid growth to long-term sustainability.

Launch & Grow

The first 12 months of mobile money in Haiti

SERVICE PROVIDERS OF MOBILE MONEY IN HAITI

There are four mobile network operators (MNOs) in Haiti—Digicel, Voila, Haitel, and Natcom. Collectively they have grown mobile phone penetration from 5% in 2006 to 35% in 2010⁴. Today, more than 3.6 million subscribers have mobile accounts, and an estimated 85% of households have access to a mobile phone⁵. Digicel currently holds an estimated 65%⁶ market share with Voila controlling more than 30% of the remaining market. Though the market for voice services is far from saturated, there is fierce competition between MNOs.

In late November 2010, Digicel-Scotiabank publicly launched TchoTcho Mobile, the first mobile money service in Haiti. Several weeks later, at the beginning of December 2010, Voila-Unibank followed suit with the launch of T-Cash. TchoTcho Mobile

and T-Cash were both designed as bank-led partnerships. In these models, Scotiabank and Unibank hold fiduciary responsibility for the service and are responsible for the approval of agents and for regulatory compliance. Each partnership has a different set of provisions and parameters around cost and revenue sharing. However, as the owners of the mobile accounts, Digicel and Voila drive the majority of customer engagement and service delivery, including customer care, agent network management, and customer acquisition.

Digicel and Voila have both selected third-party technology providers (YellowPepper and MoreMagic) to deliver their mobile money services. Different contracts and service-level agreements govern these relationships. As the services have evolved, providers are increasingly looking to the technology partners to integrate more functionality into the system—including links with customer bank

	TchoTcho Mobile	T-Cash
MNO	 <ul style="list-style-type: none"> • Largest MNO with ~2.5 million subscribers • Subsidiary of the Digicel Group (Bermuda) 	 <ul style="list-style-type: none"> • Second MNO with 1.5 million subscribers • Owned by Trilogy International Partners (USA)
Tech Provider	 <ul style="list-style-type: none"> • Latin American tech provider • Local partner involved in agent registration 	 <ul style="list-style-type: none"> • US-based tech provider
Bank(s)	 <ul style="list-style-type: none"> • Scotiabank is a leading international bank with a smaller presence 	 <ul style="list-style-type: none"> • One of the two largest foreign banks
Agent Partners	   <ul style="list-style-type: none"> • YellowPepper is a third-party agent manager • Alo Communications and Fonkoze are agent partners 	  <ul style="list-style-type: none"> • Unitransfer outlets are registered T-Cash agents • Voila is converting many airtime agents

accounts, formal bill pay services, and merchant user interfaces as well as reporting support of mobile money for general payments. Both YellowPepper and MoreMagic will need to invest in their platforms to accommodate these requirements, which will take time for development, testing, and integration.

To support delivery, both service providers have partnerships with other organizations to manage their agent networks. In the case of Digicel, YellowPepper is responsible for agent recruitment, training, and establishment. With its limited branch network (three branches in Haiti), Scotiabank is unable to support the agent network adequately in liquidity management. However, Digicel has established partnerships with its airtime distribution super-agent Alo Haiti (19 branches) and microfinance institution Fonkoze (43 branches) to provide a physical branch network to give agents proximate options for managing their own liquidity. Voila is facilitating its own agent recruitment and training, and is using the much larger branch network of its bank partner Unibank and subsidiary Unitransfer to provide a network for T-Cash agents to access. Global research has shown that agents typically require approximately 50 transactions a day to earn sufficient commissions to be interested and engaged as mobile money

Transaction	TchoTcho Mobile		T-Cash	
Registration	Free, HTG100 deposit		Free, no deposit	
Deposit	Free		Free	
	Transaction amount (HTG)	Fee (HTG)	Transaction amount (HTG)	Fee (HTG)
Transfer to a client	25-1,000	6	1-25	Free
	1,001-2,500	15	26-599	1/100
	2,501-5,000	25	600-1,000	6
	5,001-10,000	30	1,001-2,500	15
			2,501-5,000	25
Transfer to a non-client	25-1,000	20	25-1,000	20
	1,001-2,500	40	1,001-2,500	40
	2,501-5,000	80	2,501-5,000	80
	5,001-10,000	120	5,001-10,000	120
Withdrawal	25-1,000	10	25-1,000	10
	1,001-2,500	20	1,001-2,500	20
	2,501-5,000	40	2,501-5,000	40
	5,001-10,000	60	5,001-10,000	60








SOURCE: *Mobile Money in Haiti: Potentials and Challenges* (Taylor, Baptiste, Horst) 2011

agents⁷. In the absence of this level of activity, both service providers are struggling to maintain agents who are actively sustaining their liquidity, promoting the service, and educating consumers. Both service providers still are actively expanding their agent networks to increase coverage beyond Port-au-Prince.

The standard service mix established by both TchoTcho and T-Cash at launch has not changed significantly in the past 12 months. At present, both service providers offer consumers “cash in, cash out” and “person-to-person” (P2P) transfer services. In addition, Digicel offers mobile airtime purchases, and Voila

has established more than 240 merchants to accept retail purchases using T-Cash accounts. As shown in the table above, there are small variations in the pricing of different transactions between TchoTcho Mobile and T-Cash. Both service providers now offer a mini-wallet with a transaction limit of 2,500 HTG for T-Cash and 4,000 HTG for TchoTcho Mobile, and a full wallet with a transaction limit of 10,000 HTG as set by the Central Bank. These mobile wallets (mWallets) have different Know-Your-Customer (KYC) requirements. The mini-wallet has created significantly more flexibility in customer acquisition, since consumers without a national identification card can

Current Versus Potential Service Offerings

Service		Application of available services	
Current	Cash in/cash out		Person to person transfers
	P2P transfers		Airtime purchases*
	Payments (including airtime*)		
Potential Future Products	Formal bill payment		Salary payments
	Bank account integration		Benefits and transfers
	International remittances		Supply chain payments
	Micro-insurance		Customer point-of-sale payments
	Savings		
	Loans		Loan repayments

*Note: Voila does not currently allow airtime purchase using T-cash account

subscribe for the service. Voila made a full commercial launch in December 2010 with a mini-wallet, while Digicel launched its service with a full wallet, and only introduced a mini-wallet in July 2011.

The scope of services still remains limited in Haiti. Service providers are looking to move beyond “cash in, cash out” and P2P transfers to other services that can be developed or ways to use existing services. Both service providers are expanding to include system payment functionality, and are developing interfaces

to enable mWallet integration with bank accounts. These new services will greatly enhance the flexibility of the overall service mix. Service providers are also working hard to increase the use of their current services for a broader set of payment applications. Digicel is in the final stages of launching a national lottery product that uses the TchoTcho platform and associated agent network to facilitate purchase of credit to participate. The company is also piloting the use of mobile money for loan repayments with ACME, and has experimented with an open

application programming interface (API) for a local online auction company, www.2goud1.com, to accept mobile money as a medium of payment. Similarly, Voila is aggressively expanding the use of T-Cash for cash transfers by non-government organizations (NGOs) and is working to expand the set of merchants that will accept mobile money for customer point-of-sale purchases.

The development of new value-added services (VASs) and strategies for gaining customers remains one of the most fundamental points of difference between service providers, and the providers are holding their secrets closely as they compete for market share. (Refer to our research on payments—"From Market Opportunity to Sustainable Business"—for further information on the product and market strategies of service providers.)

Twelve months after launch, both service providers are beginning to take stock of their operations,

products, and market strategies. In discussions with service providers, evidence suggests that the initial impetus to consolidate a small service offering and grow quickly is beginning to give way to longer-term thinking about how to build sustainability into the business. As one service provider manager remarked, "At the moment we are stepping back to refine our processes and become more efficient." Sustainability inherently means refining internal processes to support the growth of the service. However, service providers are more concerned about how to establish a critical mass of active users that can generate enough transactions to keep agents supporting the service (through adequate commissions), and how to install senior management committed to investment (through realizing medium-term revenues and breaking even). Achieving this goal is dependent on both the internal strategies service providers are using, as well as a range of external factors, many of which are outlined below.

CURRENT CHALLENGES FOR SERVICE PROVIDERS

- Prioritizing scarce resources to target key customer segments and value added services
- Consolidating relationships and internal processes between mobile network operators (MNOs), banks and technology providers
- Developing a broader agent network that understands and is engaged with the product
- Retaining key staff

THE REGULATORY ENVIRONMENT

On September 17, 2010, the Central Bank of Haiti mandated the use of bank-led models for mobile money in Haiti⁸. This central policy decision required that banks take full fiduciary responsibility for the services, including the approval of agents. The decision also mandated that MNO partners could not independently brand services, ensuring that the role of the bank partner in the service was clear and visible to consumers.

Other guidance from the Central Bank included restrictions on mWallets, merchants, and agents. There is currently a cap of 10,000 HTG (~US \$250) for consumer mWallets at any given time, and a maximum transaction limit of 10,000 HTG per day and 60,000 HTG per month. Service provider systems currently are configured to enforce these provisions. These provisions also apply to agents and merchants. Wallet limits are one of the most frequently cited challenges to the continued expansion of mobile money in Haiti, constraining the platform's use to small transfers and purchases.

One other unique aspect of the regulatory environment in Haiti is the early mandate that service provider solutions be interoperable. This policy guidance involves significant technical and political alignment between service providers and policymakers. A truly interoperable architecture will take time to develop. As a result, requirements for interoperability currently are not being enforced. Indeed, no country has created an interoperable network between mobile money solutions. Pakistan and the Philippines are in the early stages of considering how to build interoperability into their national systems with support from industry think-tanks such as the Consultative Group to Assist the Poor.

Haitian regulation of electronic payments

There is currently no specific legislation that governs electronic payments in Haiti. In the absence of this regulatory framework, the Central Bank guidelines for branchless banking have provided a framework for the development of services. However, momentum is building from industry and interested donors around revised legislation. A set of proposed laws was elaborated by a Presidential Task Force in 2009 and is currently awaiting further review by the executive and the Parliament.

CURRENT CHALLENGE FOR REGULATORS

- Balancing control and consumer protection with regulatory changes that enable further development of mobile money

The Formal Design of the HMMI Prize



Total Award: US \$4 million

- US \$2.5 million for the first operator to launch 100 qualifying transactions at each of 100 new outlets
- US \$1.5 million for the second operator to do so, or for the first to launch such a service by June 10, 2011



Total Award: US \$6 million

- If 100,000 qualifying transactions, US \$10 per transaction¹
- If 1 million qualifying transactions, US \$2 per transaction
- If 5 million qualifying transactions, US \$0.80 per transaction

As mobile money services in Haiti evolve toward a sustainable state, it is expected that the question of interoperability will be actively pursued.

THE ROLE OF MARKET BUILDERS — FUNDERS, CONVENERS, BROKERS, AND THOUGHT LEADERS

The Haiti Mobile Money Initiative, announced in June 2010 by the Bill & Melinda Gates Foundation and USAID, sought to incentivize the establishment of mobile financial services in Haiti by providing US \$10 million in prize money for service providers that launched and scaled a mobile financial services business. An additional US \$5 million was made available in technical assistance for initiatives that contributed to the development of the sector. In its

role as the administrator of the Haiti Mobile Money Initiative, HIFIVE is responsible for overseeing the verification of the prize awards, as well as the award and administration of the technical assistance fund.

While many would argue that mobile money would have been launched in Haiti even without the prize mechanism, most agree that it precipitated the evolution of the market for mobile financial services. Global experience indicates that designing and launching mobile money services can take up to two years. Two services were launched six months after the announcement of the HMMI prize.

Both service providers indicated they had previous plans to launch, but that the prize accelerated the

start of their services. Preliminary evidence suggests scale incentives also may have led service providers to prioritize short-term promotions aimed at stimulating usage, at the expense of initiatives and actions that would build a stronger platform for the businesses over time. After the prize is fully awarded, a more robust assessment of the HMMI program is envisioned.

A set of conveners and brokers also played a key role in the development of the mobile money market in Haiti, the most important of which has been HIFIVE. In June 2011, HIFIVE facilitated the first sector-wide convening of mobile money actors in Haiti. Representatives from the banking, telecommunication, NGO, and technology sectors were joined by regulators and experts from other markets to discuss relevant issues. Coming out of this convening, HIFIVE has been instrumental in facilitating the creation of an industry forum under the Haiti Banking Association to develop a consolidated industry position on regulatory and governance issues. Banking representatives then will

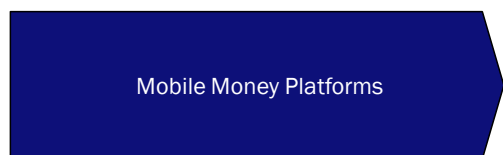
present these collective views to the Central Bank of Haiti. As of December 2011, this industry forum had met twice and was forming membership and a set of guidelines and norms to govern its activities.

Finally, the mobile money market in Haiti has been promoted by a set of researchers and thought leaders. To further support the evolution of the market, the Bill & Melinda Gates Foundation allocated funds for market research by the University of California-Irvine and Dalberg Global Development Advisors. The objective of this research is to provide an independent third-party research base on the evolution of the mobile money market. UC-Irvine is providing ongoing research into the ethnographic experience of consumers, making its research public and available to all actors in the ecosystem. Dalberg is providing periodic technical research into the evolution of the ecosystem, focusing on specific issues such as the experience of early adopters and the market opportunity for payments, and is synthesizing key issues constraining market growth.

CURRENT CHALLENGE FOR DONORS

- Understanding the impacts of incentives for future design and allocation of grant resources to continue to develop the ecosystem

Four major ICT solutions have been used for cash transfers by NGOs.



Pre-paid cards

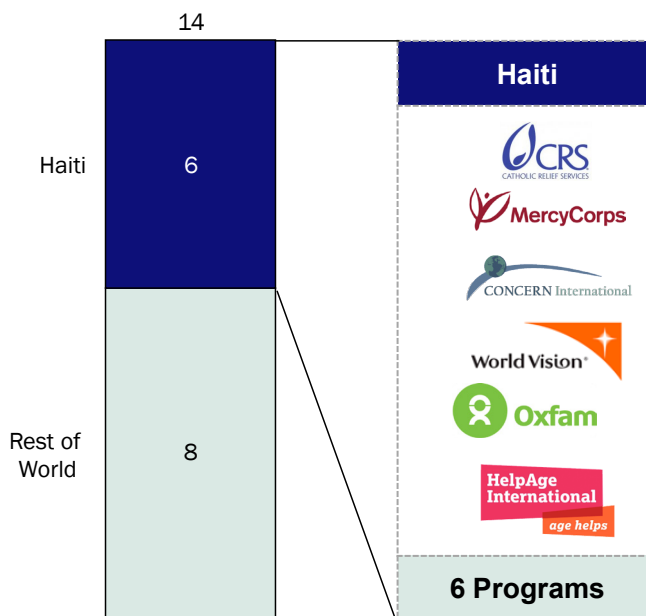


Smart cards



Electronic vouchers delivered via mobile

Haiti accounts for 40% of the world's cash deployment programs using a mobile money platform



Source: CALP; Dalberg analysis

For more information on the experience of the global experience of using the four major ICT solutions please refer to Smith, G. et al (2011) 'New Technology to Enhance Humanitarian Cash and Voucher Programming', The Cash Learning Partnership (CALP)

NGOS AS EARLY ADOPTERS

A unique feature of the evolution of Haiti's mobile money ecosystem is that NGOs were among the first adopters of this new technology. Driven by the post-disaster need to distribute cash safely and efficiently, NGOs have been early innovators in partnering with Voila and Digicel to establish mobile-money-supported programs.

The context for this evolution is important. Four ICT solutions have emerged to support the delivery of cash transfer programs around the world: mobile money, electronic vouchers, prepaid cards, and

smart cards. The choice of delivery method typically depends on the supporting environment. Where a strong banking infrastructure and credit card network exist, NGOs have successfully delivered services using card-based technologies like pre-paid and smart cards. In countries where this infrastructure is not as strong but where there is significant mobile-phone network coverage, mobile-based solutions have emerged as a preferred option.

Haiti has more mobile money-enabled cash transfer programs than any other country in the world and represents more than 40% of

known deployments⁹. Since the earthquake, six NGOs in Haiti have launched mobile money-enabled cash transfer programs. These programs have distributed US \$5.7 million to more than 24,000 beneficiaries. Mercy Corps and World Vision were the first NGOs to develop programs using mobile money as a distribution mechanism. These programs created templates for other NGOs to partner with Voila and Digicel. Many of the original programs have been completed, and Mercy Corps, World Vision, and Oxfam are taking stock of the efficacy of mobile money to inform future programming. In addition, CARE, the World Food Program and UNDP are all actively developing new programs. In delivering these payments, Digicel uses a third-party provider, while Voila has created its own direct-system web interface for NGOs and other customers to manage their payments. Both service providers are actively looking



With the support of a USAID/HIFIVE grant and working together with Voila, Mercy Corps launched a food assistance program targeting 20,000 households in the Central Plateau and Artibonite departments (launched June 2010). The program piloted the use of mobile money for about 7,500 beneficiaries and created a network of vendors accepting mobile money to encourage local economic development.

to expand the number of NGOs and other clients using their platforms for salary payments.

Much has been learned about the business case for the use of mobile money as a cash distribution platform and the required success factors to make it work. (Refer to our research on the NGO experience—"Plugging Into Mobile Money Platforms"—for further information on the business case for the use of mobile money and early learnings from the field.)

CURRENT CHALLENGES FOR NGOs

- Refining effective models for the use of mobile money platforms in service delivery
- Determining appropriate use based on program objectives and structure
- Operating in a nascent mobile money ecosystem



THE MASS-MARKET CONSUMER — EARLY EXPERIENCES FROM THE FIELD

Little public research has been conducted on mass-market perceptions and experiences of mobile money in Haiti. What little has been completed by Mercy Corps and the University of California, Irvine has focused primarily on profiling individual use cases and how mobile money could alleviate specific consumer pain-points. As a result, service providers them-

selves have the best insight into the mass-market experience in the form of transaction data and responses to marketing and promotional activities. Since the market is competitive, this data is not shared publicly. However, from interviews across the ecosystem and a review of publicly available primary research, we do know something of the experience of the mass market.

Service providers, NGOs, and agents universally acknowledge that while

awareness of mobile money is reasonable, better education is required to increase understanding of its value and how it works. A UC-Irvine survey¹⁰ conducted six months after launch found that only 10% of respondents had signed up for mobile money. However, more than 80% said they were aware of the existence of mobile money services. Of non-users, around two-thirds said that the reason they had not tried such services was due to a lack of knowledge or access. This early survey data corroborates the views of many in the ecosystem that consumers have heard of the services, but few truly understand how to use it. The challenge for service providers in the future will be to increase marketing and incentivize front-line agents to educate consumers at the point of transaction.

While the services available have been limited, both service providers cite evidence suggesting that a small subset of mass market early adopters find real value in the service. With a limited set of mass market services, the most frequently cited cases have been where consumers use their mWallet as a mechanism for security, domestic remittances within Port-au-Prince, and airtime purchase. The UC-Irvine research¹¹ gives further insight into the profile of early adopters, finding that more than 60% of early

me2me transfers

Research by the Institute for Money, Technology and Financial Inclusion (IMTFI) at the University of California, Irvine suggests that me2me transactions (deposits and withdrawals for purely personal use) are an important use of mobile money services. The popularity of me2me transfers has been driven by the benefits it offers across three dimensions:

1. **Security:** me2me transfers offer a way to avoid the stress of travelling with cash in hand
2. **Convenience:** Avoids need to use an unreliable banking system and ATM network. Furthermore, allows for purchase of phone credit during shop closing times
3. **Saving:** Storing money in mobile money has been found to encourage saving. In the words of one quoted user: "If I have money in my pocket, I will use it on beer, cigarettes and women, but if it is not there I cannot spend it as fast. After all, money is the devil; it makes you do crazy things."

adopters had completed at least a secondary education, compared to only 37% of the population as a whole. The survey also found that, while almost 50% of Haiti's population is younger than 30, only 38% of the early adopters were in that age group. Much more research is needed to understand how mobile money is currently being used in Haiti; UC-Irvine is planning a second survey in the coming months to track and explore the mass market perceptions about use of mobile money.

Evidence also suggests that Haitian consumers are highly price sensitive. One service provider manager recounted launching a transfer

promotion where consumers would receive 40 HTG for every three person-to-person transfers (P2P) completed on a given day. The total transaction costs for these three transfers was 18 HTG, leaving consumers with a 22 HTG benefit. Transaction numbers remained low in the initial roll-out, around 2,000 transactions a day. The service provider then lowered the transaction cost and benefit to 1 HTG per transfer and 30 HTG in bonus, respectively, and experienced a 40 fold increase in transactions per day for the duration of the promotion. Service providers are continuously adjusting pricing for different customer segments and service applications (such as NGO transfers and salary payments) to accommodate Haitian perceptions of value and cost.

The results of our research also suggest that Haitian mass-market consumers are curious but do not yet trust the system. Service providers noted that mass-market consumers have been highly responsive to both below-the-line marketing and promotions. Some promotions

incentivizing P2P transfers were largely communicated via word of mouth and led to immediate usage spikes in targeted areas. Similarly, anecdotal feedback from the field suggests that days after community activation campaigns, consumers who did not attend these meetings would come to agents inquiring about the service. Haitians are culturally inquisitive consumers. However, though small incentives can have big effects, service providers also shared anecdotal evidence about the price sensitivity of consumers and perception that consumers do not yet truly trust the system. Service providers have reported frequent and repeated balance inquiries from a large number of subscribers with small balances, even though balance inquiries cost the consumer. In some instances, consumers checked their balances so often they zeroed out their accounts. These issues of price sensitivity and trust are closely linked to the need for ongoing education and an expanded set of payment applications to make mobile money truly mainstream.

CURRENT CHALLENGES FOR CONSUMERS

- Moving from awareness to understanding of the service
- Establishing a more diverse set of mobile money payment options
- Having access to a more ubiquitous agent network

Sustain

Ongoing development of Haiti's mobile money ecosystem

The mobile money ecosystem is at a natural transition point in Haiti, where sustainability will become a central focus. Indications suggest that in the coming months, the rest of the HMMI prize will be awarded. With the pending completion of this monetary incentive for service providers to scale quickly, there is a renewed focus on refining operations and developing customer and market strategies that chart a path toward sustainability.

A unique set of tensions will continue to define the development of the mobile money ecosystem in Haiti. We have identified four of these tensions that we believe will be central to the evolution of the market in the coming 12 months.

TENSION 1: BETWEEN THE SHORT AND LONGER TERMS — PIVOTING TO SUSTAINABILITY

Service providers have learned a lot in the past 12 months. Both service providers acknowledged in

interviews that a premium was put on experimentation and achieving rapid transaction volume in the first year of operations. Experience in other markets has suggested that this is a good tactic in the short term as service providers generate buzz around the product and test consumer reactions. However, at some point there is a natural transition to a more considered planning process that prioritizes options.

Service providers' tactics to date have yielded a rich experience base from which a future course toward sustainable business can be charted. It will be important for service providers to take time to reevaluate and develop a 12- to 24-month strategic plan that aligns a targeted approach to a small number of customer segments and moves beyond marketing to broader consumer education.

In addition, it will be important to develop an agent network that supports the emerging mobile money business and an expanded set of

services that add flexibility to the use of the mobile money platform.

Digicel/Scotiabank and Voila/Unibank have been actively testing and refining hypotheses about the Haitian mobile money market for some time. However, experimentation has largely been in the area of person-to-person transfers – including methods of pricing, marketing and promotion. With imperfect information, there are no right answers for how service providers should prioritize and focus, only better options. Service providers should take the time to segment the market, gather all available information, and develop hypotheses to test where and how to invest. In the absence of a single use-case that will independently generate a critical mass of transactions (like the domestic remittance experience in Kenya), service providers need to build a variety of applications and customer segments. With an expanded view of the payments market in Haiti, the scope for experimentation is limitless; success will require finding use-cases where there is real customer value.

TENSION 2: BETWEEN NEW BEDFELLOWS — CONSOLIDATING BANK, MNO, AND TECHNOLOGY PARTNERSHIPS

In addition to charting a course for

long-term growth and sustainability, service providers still must work to refine their partnerships—specifically to refine relationships, and processes with participating banks, MNOs, and technology providers. As one service provider manager remarked, “We have traditionally had such different business models.” A large part of this process is the natural adjustment of expectations and understanding to a new product and requirements for working together. Expectations around profit-and cost-sharing are being reconsidered as partners take stock of the first year of operation. Effectively managing the technology and required customer and agent support processes are also central issues as partnerships are refined.

Inherent differences in Haiti’s banking and telecommunications sectors are at the root of this tension. While commercial banks have been in Haiti for decades, typically taking a conservative position to serving the bottom of the pyramid, MNOs have aggressively expanded mobile reach and penetration, investing more than US \$560 million in the last ten years¹². These stark differences in how banks and MNOs approach the market are inevitably going to take time to reconcile. What is important in this process is for each party to recognize differences and to take a longer-term view of the service and what will be ultimately needed for it to thrive.




TENSION 3: BETWEEN CONTROL AND ENABLING EXPANSION — CHOICES FOR REGULATORS

There are two critical issues that are significantly inhibiting the expanded use of mobile money as an ubiquitous payments platform: the current consumer wallet limits and the lack of specific guidance around merchant classifications and associated limits. Both are important for mobile money to begin to gain traction as a medium for paying salaries, merchant transactions, loan repayments, and in value chains. The exhibit in this section demonstrates how current wallet and transaction limits impact the use of the service for specific types of payments. As service providers begin to invest more in making mobile money a ubiquitous payment medium, establish-

ing different classes of merchants (with appropriate KYC) will become increasingly important. For example, signing up a local fruit merchant with a modest daily trade should, theoretically, be different from establishing a large supermarket as a merchant. Further guidance is being sought from the Central Bank of Haiti on these classifications to enable these transactions.

As with most regulatory issues, decisions to change or ease restrictions to enable the further expansion of mobile money services are grounded in perceived risk. With a number of competing post-earthquake priorities and constraints the Central Bank of Haiti made strong decisions to endorse the introduction of mobile money in Haiti, believing in the potential for great financial inclusion and

How Do Wallet Limits Impact Usage?

Transaction	Examples of limitations created by current wallet size
Salary payments 	<ul style="list-style-type: none"> Public sector employee that earns more than US \$11/day will earn too much to be paid into their mobile wallet (if paid on monthly basis) Note: If employees were to retain a portion of their salary in their wallet there is the risk of the next payment “bouncing”
Value-chain payments 	<ul style="list-style-type: none"> A farmer who wants to sell more than US \$250 of produce with receipt to his mobile wallet will be unable to do so on a given day
Consumer point-of-sale payments 	<ul style="list-style-type: none"> A customer wanting to purchase groceries of US \$200 and fuel of US \$60 on a given day would not be able to do so, potentially excluding wealthier segments of society or merchants that sell higher-value goods

innovation. However, in relation to other countries, Haiti has a very conservative position. In Ghana, transaction limits are 300 times higher than the US \$250 limit in Haiti. Similarly, in Kenya, consumers are able to hold up to US \$590 on their mobile wallets¹³. The good news is that there is significant room for policy adjustment; higher limits can be accompanied by adapted KYC requirements that offset the risks involved.

TENSION 4: THE PRIZE MONEY —THE LEGACY OF THE FIRST AWARDS AND POTENTIAL FUTURE GRANTS

With the final two incentive awards and about half of the available technical assistance grant not yet awarded, the full market effects of the HMMI prize and technical assistance facility are yet to be completely understood. A comprehensive assessment of this subsidy will be valuable to informing donor programming and prize design. From interviews across the ecosystem, it is clear that the use of subsidy and prize incentives in the market has affected the behavior of actors. In some cases the effects are clear: Mercy Corps has acknowledged the important role of an HMMI grant in innovating around the use of mobile money in their cash distribution programs. Other effects are less clear: how would service providers have approached marketing and promotion in the

absence of prize funding? Regardless, the ongoing decisions of donors will be important for the continued development of the market.

Depending on if, and how, the remaining funds are finally awarded, this award is estimated to represent 30% to 50% of the typical launch costs experienced by service providers in other markets. Any further subsidization of service providers should be considered in this context. Three areas have been identified as potentially catalytic uses of grant funds to alleviate immediate ecosystem constraints: (i) the maintenance of the HIFIVE HMMI program as a trusted independent convener and broker, (ii) further support of consumer-level research to guide product targeting and development, and (iii) selective subsidization of new product and technology development.

The way in which these tensions are resolved will define the future growth of the mobile money ecosystem in Haiti. Open industry dialogue will help mobile money realize its full promise. The quality of dialogue and information sharing with the government and donors in particular will be important for the evolution of regulation and the effective ongoing use of subsidies. In this context, the industry forum facilitated by the HIFIVE HMMI program represents an important opportunity.

Evolve

New opportunities for mobile money in Haiti

Haiti is a hotbed of innovation, benefiting from the creativity of a diverse set of actors and agendas. As a late adopter of mobile money, the country also has the opportunity to learn from what is happening in other markets. Looking beyond the establishment of a core, sustainable service offering, there are a number of potential areas for Haiti to consider.

THE POTENTIAL FOR INTEROPERABILITY

Haiti is in a unique situation where two competing services have been launched at the same time, with no clear dominant position in sight. The Central Bank has already established its desire to see a seamless interoperability not only between the different mobile money services in the market, but also within the entire banking infrastructure. Although that might introduce some



Creating new solutions

In April 2011, Transversal was awarded a USAID/HIFIVE grant to develop smart phone services for Haiti's mobile money sector using cloud software. Transversal has developed several mobile money solutions including:

- An agent mobile application to allow mobile money agents to register new clients and perform cash-in and cash-out operations
- A merchant mobile application that allows vendors to receive mobile money and electronic voucher payments in person or remotely

technical challenges in the beginning, ultimately, the customer is expected to win as this integration provides the highest level of convenience for customers.

This interoperability is supposed to be implemented through a “national payment switch” that the central bank is installing and that will provide a common gateway to

route financial payments within the Haitian banking system. Some pilot tests have already been completed with select banks, but a definitive date is not yet known for the launch of the facility. Interoperability between competing mobile money systems and the rest of the banking infrastructure should provide further integration of the unbanked into the formal banking system.

THE POTENTIAL FOR VALUE-ADDED SERVICES AROUND MOBILE MONEY

Contrary to how mobile money developed in other regions of the world, particularly in Africa, demands for value-added services and customized solutions arose in Haiti from the start. With the development of mobile services around the world, customers and technology providers have become more aware of the possibilities of such systems and have demanded expanded functionality. Both MNOs understand that the best way to unleash innovation in the mobile payment industry is to adopt an open architecture system that allows third-party providers to design applications on top of the mobile payment platform.

This trend is unique in the developing world, in the sense that MNOs are considering opening functionalities of their platform by providing public APIs and controlled access

for external systems to connect, initiate, and process transactions. Although each MNO is evolving at a different pace, some innovations are already in the market, notably in the customer acquisition area, merchant payments, and electronic vouchers.

With a careful, elegant and robust design, these approaches to mobile money services as a platform to enable payments could provide a reference case of how open architectures could foster a vibrant ecosystem of specialized applications leveraging the mobile payment infrastructure, thus allowing the country to leapfrog directly into m-commerce, bypassing e-commerce as we know it on the Internet.

THE POTENTIAL FOR GOVERNMENT-LED ADOPTION OF MOBILE MONEY

The e-government initiative, designed by a Presidential Task Force established in 2009, offers a coordinated view of how technology can be used to foster development and achieve efficiency and transparency¹⁴.

The Haitian government is launching an e-government initiative that aims to modernize and transform public services. This e-government initiative is supported by Inter-American Development Bank and aims to

establish a citizen-oriented public administration. A mobile strategy is part of this e-government initiative, in which the mobile device will be considered a tool for the delivery, consumption, and payment of government services, in an effort to streamline processes in the public administration.

The mobile payment infrastructure is part of a bigger plan to modernize the Haitian economy by reducing transaction costs and improving services. The e-government unit responsible for the deployment of this platform is attached to the office of the prime minister, with full support from the president. This unit will coordinate all technology efforts inside the public administration and the government and will integrate payment mechanisms like the mobile payment to streamline business processes for government services.

MAKING MOBILE MAINSTREAM IN HEALTH

Beyond mobile money, there has been great interest in the potential of mobile to expand the reach and effectiveness of Haiti's crippled health system following the earthquake. Many uses of mobile in health were initially focused on post-earthquake emergency needs, including the use of Ushahidi Crisis Mapping to match resources and supplies with people in need; Project 4636, which allowed Haitians to text their urgent needs for medical care, security, water, or food to emergency respondents; and the Trilogy Emergency Response Application, which sent out SMS messages with public health advisories on cholera and tropical storms. Now, many are exploring and working toward integrating mobile into more of the health system's needs and services.

Emergence of mHealth Models and Ecosystem



It is within this context that several links between mobile money and health are emerging. Ecosystems and infrastructure for mobile money and health can be mutually reinforcing, as was the case when airtime and mobile money agents sold chlorine tablets during the cholera epidemic. At that time, demand for chlorine tablets increased dramatically, and existing NGO channels were unable to meet the demand and distribute the product. By using the MNO agent networks, not only was access expanded, but a revenue-generating opportunity arose for agents. Similarly, the use of conditional cash transfers for health and mobile money to incentivize vaccination campaigns by compensating mothers and providers illustrates how mobile money can play a valuable role in health.

Finally, eHealth Point, a clinic model that brings together telemedicine, clinic, pharmacy, and diagnostic lab, has recently piloted in Haiti. Within this model, the entrepreneurs have moved from simply registering patients for clinic services to registering them for mobile money at the same time, turning what was previously a cost into a revenue opportunity.

As the mobile money ecosystem matures, there are likely to be many more mutually reinforcing intersections of mobile money and health.

FINAL THOUGHTS

Mobile money in Haiti is a unique case study. In conversations with stakeholders, predictions on the future of the mobile ecosystem varied wildly. Some believed Haiti would emerge as the next M-Pesa – the world’s most successful mobile money platform launched in Kenya – as services gain momentum and the value proposition of mobile money was realized. Others believed that the consumer education issues would be too big to crack. Most, however, were optimistic about the promise of mobile financial services in Haiti, and all thought that mobile money was there to stay in one form or another.

As Haiti makes the transition to a new phase of mobile money ecosystem development, we expect it to pioneer new approaches to problems and take advantage of unique opportunities, as with NGO cash transfer programs. We believe that the unique environment, the focus on doing things differently, and the variety of public, philanthropic, and private-sector actors make Haiti a country primed for experimentation and innovation. In many ways, Haiti is a country that lags behind the rest of the world, but in the case of mobile money, we fully expect Haiti to buck the trend, innovating and leading the industry.

End Notes

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⁴ Digicel press releases, Dalberg interviews for Voila/Haitel estimates, ITU

⁵ Voila website

⁶ Time Magazine Why Digicel has donated more money for Haiti, August 2010

⁷ Scaling mobile money, Ignacio Mas and Dan Radcliffe, Bill & Melinda Gates Foundation, May 31, 2011

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⁹ CALP research

¹⁰ http://technology.cgap.org/2011/11/22/tracking-mobile-money-use-in-haiti/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+cgaptechnology+%28CGAP+Technology+Blog%29

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¹² Digicel website; Voila website

¹³ CGAP, “10 things you thought you knew about M-PESA”, November 22, 2010

¹⁴ www.commissiointic.ht

AUTHOR

Dalberg Global Development Advisors is a strategic consulting firm that works exclusively to raise living standards in developing countries and address global issues like climate change. Dalberg is for-profit but not profit-maximizing; it only takes projects that will advance its social mission. The firm's work helps governments, foundations, international agencies, non-governmental organizations, and Fortune 500 companies to make sustainable improvements in the lives of disadvantaged and underserved populations around the world. Founded in 2001, Dalberg now has more than 120 people from 30 nationalities working in 10 offices around the world. They bring expertise gained in the private sector to bear on problems commonly dealt with in the public and non-profit spheres. The firm takes a holistic approach to global development, touching topics from access to finance and energy policy to public health and human rights. Recent projects have included the development of the Affordable Medicines Facility – malaria (AMFm), the GreeNYC sustainable city initiative, the U.S. government's strategy for rebuilding Haiti, and a range of business models for companies and agencies hoping to serve people at the base of the pyramid. For more information regarding this and other research, please visit www.dalberg.com, or contact one of the following people:

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RELATED RESEARCH



THE MARKET OPPORTUNITY FOR PAYMENTS IN HAITI

The focus of mobile money services in Haiti to date has been on the market for person-to person transfers and NGO transfer payments. As the ecosystem develops service providers will be looking at a more diverse set of potential payment market segments to make the mobile money platform truly ubiquitous. This focus note looks at the payments market in Haiti, providing reflections on service provider strategies and a deep dive into agricultural value chains.



THE NGO EXPERIENCE OF “PLUGGING INTO MOBILE MONEY”

Non-governmental organizations (NGOs) in Haiti are among some of the earliest adopters of mobile money as a cash distribution platform for disaster relief and livelihood programming. Six NGO's in Haiti have recently completed programs using mobile money platforms. This focus note takes stock of their experience seeking to establish the business case for the use of mobile money in these programs and to distill early learnings from the field to guide future programming.

