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FEASIBILITY STUDY OF MOBILE MONEY FOR WINNER-ASSISTED FARMERS



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LIST OF ACRONYMS

ATM	Automated Teller Machine
CRDD	Centre Rural de Développement Durable (Rural Centers for Sustainable Development)
FEDEPAT	Fédération des Producteurs Agricoles de Thomazeau
HIFIVE	Haiti Integrated Financing for Value Chains and Enterprises
HIT	Haiti International Traders
HTG	Haitian Gourde (currency)
ID	Identification
ICT	Information and Communication Technology
KYC	Know Your Customer
MMT	Mobile Money Transfer
MNO	Mobile Network Operator
NGO	Non-governmental Organization
PIN	Personal Identification Number
P2P	Person-to-Person Transfer
SIM	Subscriber Identity Module
SME	Small-medium enterprise
SMS	Short Message Service
SRI	System of Rice Intensification
USAID	United States Agency for International Development
USD	United States Dollars (currency)
WINNER	Watershed Initiative for National Natural Environmental Resources

1 INTRODUCTION

1.1 USAID WINNER Project Overview

The WINNER project aims to improve the living conditions of people in the Cul-de-Sac and Matheux corridors, and to expand agricultural production through a value chain approach that fits into the Feed the Future Initiative of President Obama and primarily focuses on four food crops: maize, rice, beans and plantains. WINNER includes three intermediate results:

- Agricultural Productivity Increased
- Watershed Stability Improved
- Agricultural Markets Strengthened

The project introduces and disseminates technical innovations to modernize Haitian agriculture, bolster agricultural productivity and increase farmers' incomes, all while protecting the environment and stabilizing upstream areas. WINNER works with more than 60,000 farmers to implement broad-based agricultural campaigns, rehabilitate rural infrastructures, carry out large soil conservation activities and link farmer organizations to buyers and markets. Farmers' yields have more than doubled in most cases through improved access to irrigation water and inputs, proximity extension services and training, and mechanized land preparation.

1.2 Definitions

Before proceeding, the terminology around mobile money should be clarified because there are several terms referring to mobile financial services (mobile money, mobile banking, mobile wallet, mobile payments, e-money, etc.) and sometimes they are used interchangeably when in fact there are some distinctions. In particular, these two terms are sometimes confused:

Mobile Banking¹

- This describes the use of the mobile phone as another delivery channel (in addition to a bank branch, automated teller machine (ATM), Internet) to transact against an individual bank account.

¹ Additional terms and their definitions can be found at http://mmublog.org/wp-content/files_mf/mobilemoneydefinitionsnomarks.pdf and at <http://blogs.worldbank.org/psd/e-money-mobile-money-mobile-banking-what-s-the-difference>.

- The mobile “wallet” is essentially an interface to the bank account. It is not a separate repository of funds; it is not a separate wallet with any monetary value.

Mobile Money

- This is a more general term than “mobile banking”.
- There is a mobile wallet accessible through the phone. When a customer goes to a mobile money agent to deposit cash into their mobile wallet, it is converted to electronic money (“e-money”). Typically, the sum total of all e-money balances for all mobile money users is matched to actual funds held in a pooled trust account, not individual bank accounts, at the bank partner.

Mobile money is what exists in Haiti today so this report going forward will use the term “mobile money” to refer to the currently available mobile money services in Haiti.

1.3 Context for Mobile Money for Agriculture in Haiti

In 2010 WINNER introduced SMS services to provide technical and market information to farmers in remote rural areas. USAID/Haiti, through the USAID HIFIVE project and the Haiti Mobile Money Initiative, a partnership between USAID and the Bill and Melinda Gates Foundation, teamed up with banks and telecom companies over the past two years to develop mobile money services in the country and is eager to scale up this initiative. Digicel with their bank partner Scotia Bank launched Tcho Tcho Mobile and Voila launched T-Cash with their bank partner Unibank.

One significant change in the mobile money ecosystem occurred this year: Digicel acquired Voila, announced on April 2, 2012². Digicel is currently developing its strategy for a future single mobile money platform but for the time being, the two mobile money services are both active as separate services. No other mobile operator or financial institution has launched a mobile money or mobile banking service as of this writing. Several non-governmental organizations (NGOs) have used both T-Cash and Tcho Tcho to deliver cash transfers and food vouchers to their beneficiaries as part of their humanitarian relief programs.

Lessons learned around the world through USAID-funded projects have shown that mobile banking and mobile money can help small farmers in many ways: farmers receive loans and make payments more easily; input suppliers have an easier way to collect and manage payments from smallholders; large buyers can pay thousands of small farmers faster and manage any credit they offer to suppliers; and mobile money also increases the reliability and efficiency of voucher services offered by the government and/or donors.

² <http://www.digicelgroup.com/en/media-center/press-releases/achievements/digicel-group-acquires-voil-in-haiti>.

1.4 How Mobile Money Works

A general explanation follows describing how Tcho Tcho and T-Cash work.

Opening a Mobile Money Account

There are two types of accounts, a “mini-wallet” and a “regular wallet”. With the mini-wallet, a formal form of identification such as the national ID card is not required to register for the service, so the “know your customer” (KYC) requirements typically required by financial institutions do not apply. This enables people with no formal form of identification to use mobile money. There is a tradeoff: to reduce the risk of financial fraud and other illicit uses of mobile money, the maximum balance on the wallet, frequency of transactions, and size of transactions are lower than a regular wallet³. In the case of T-Cash, to open a mini-wallet account, the user calls the mobile money service provider using a specific code to open an account (e.g. *700# for T-Cash) and the account is immediately opened.

To open a mobile money account with a “regular wallet”, the customer must present their national ID to a mobile money agent and make a minimum deposit. The regular wallet allows a higher maximum balance on their “mobile wallet”, a higher maximum number of transactions per day and month, and a higher total amount that can be sent or received.

When opening an account the customer also establishes a PIN code. This PIN must be entered when performing a mobile money transaction. In this way the mobile wallet is protected from theft even if the phone is lost or stolen.

Both Tcho Tcho and T-Cash agents can be found throughout Haiti with Port-au-Prince having the densest concentration of agents. These mobile money agents can be independent businesses or co-located within an existing business such as a beauty shop and run as an additional enterprise, as well as at Digicel and Voila retail locations and the partner bank branches. The role of the agent is to sign up new customers and provide the cash flow to customers. Agents earn a small commission on each of these transactions except for a deposit into the mobile money account (“cash in”).

The slides below are from Voila illustrating T-Cash transactions.

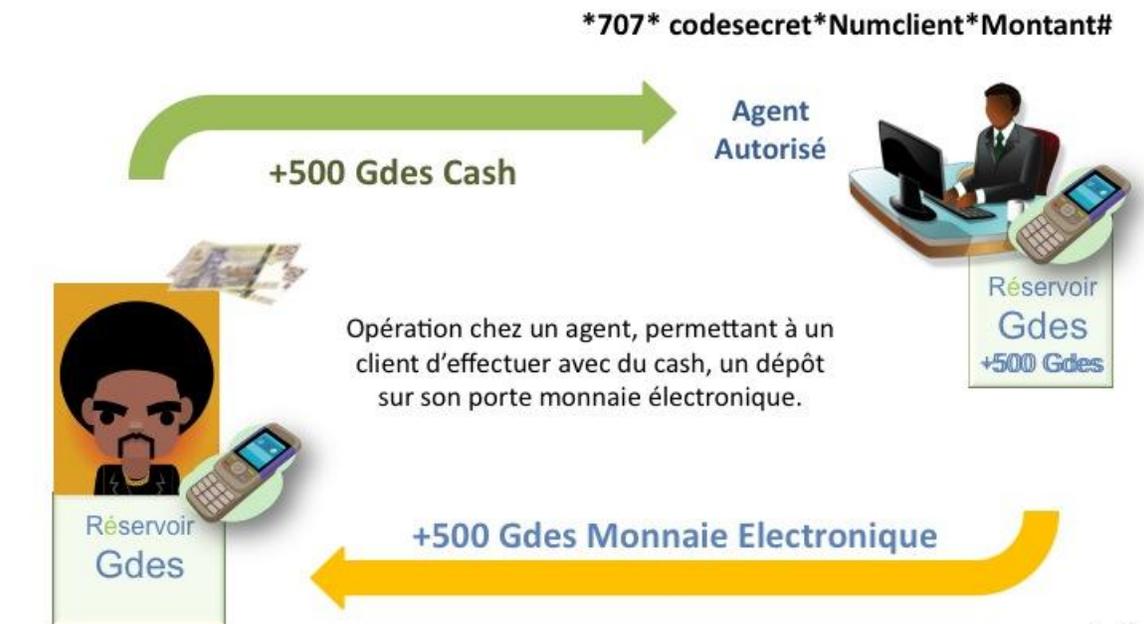
Making a Deposit (“cash in”) To a Mobile Money Account

³ See Appendix 5.2 for a list of the maximum balance allowed, number of transactions per day, etc.

To deposit money into the mobile wallet, or “cash in”, a customer goes to a mobile money agent and gives the agent the cash (Figure 1). The agent then converts it to electronic money and the customer receives an SMS text message confirming that the amount has now been added to their mobile wallet and confirming the amount of their current balance. The way this works in detail is that the agent maintains an electronic money balance (“e-float”) and conducts cash-in and cash-out transactions against his or her own e-money. For a cash-in transaction the agent accepts the cash from the customer, transfers the same amount from the agent’s own e-money balance to the customer’s e-money balance, and the customer receives a confirmation via SMS that the money has been added to their mobile wallet.

Figure 1 - Cash In

1) Faire un dépôt sur son Porte Monnaie Electronique



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Making a Withdrawal (“cash out”) To a Mobile Money Account

To “cash out” or withdraw money from a mobile wallet, a customer goes to a mobile money agent, sends the correct command or SMS to the agent, and the agent converts the electronic money to cash and gives it to the customer (Figure 2). The customer receives an SMS confirming that the amount has now been withdrawn from their mobile wallet and confirming the amount of their current balance. Again in detail, the way this works is that the agent is transacting against his or her own electronic money (“e-float”). The agent deducts the amount from the customer’s e-money balance, adds it to his or her

own e-money balance, and gives the customer the cash. The customer receives an SMS confirming that the amount has now been withdrawn from their mobile wallet and stating the amount of their current balance.

Figure 2 - Cash Out

2) Faire un retrait de son Porte Monnaie Electronique



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Sending Money from One Person to Another

When a person wants to send money to another person, they enter the commands or SMS to initiate the transfer, indicate the amount to be transferred, and the recipient's phone number (Figure 3). The e-money balance of the sender's mobile wallet is deducted and the amount is added to the recipient's e-money balance. Both get an SMS confirming the transaction, the sender's mobile number, the recipient's mobile number, and their ending balance.

Figure 3 - Person-to-Person Transfer

5) Transferts de Personne à personne

704 codeseCRET*Numbeneficiaire*Montant#

Opération permettant à une personne de transférer de l'argent de son porte monnaie électronique sur un autre porte monnaie électronique.

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1.5 Scope of Feasibility Study

The WINNER project sought to explore the possibility of using mobile money in connection with WINNER project activities where there would be benefit for the farmers and other stakeholders from this technology.

The purpose of this study was to identify potential services that could be offered to WINNER-assisted farmers and other stakeholders through mobile money platforms currently existing in Haiti, and to select the best financial institutions and partners that could provide those services. Value chains and activities supported by WINNER were reviewed to identify concrete opportunities for mobile banking. A subset of the rice value chain in the Thomazeau area of the Cul de Sac du Plaine region was selected as a candidate value chain for a potential mobile money pilot. A rapid survey of a sample of rice farmers in Thomazeau was conducted to determine feasibility, awareness and need for mobile money services. The final task was to develop a brief implementation strategy, assuming that the results of the survey indicated that mobile money was feasible for this sample of farmers.

2 SURVEY SAMPLE AND VALUE CHAIN SELECTION

2.1 WINNER Rice Campaign

Rice is one of the four target value chains of the WINNER program in the Cul de Sac and Matheux regions. The goal for 2011-2012 is to increase rice yields from 3 tons per hectare to 6 tons per hectare in Cul de Sac for 5,000 farmers. The System of Rice Intensification (SRI) introduced by WINNER in fiscal year 2011 has been a major success, producing double the rice yields compared to traditional methods while reducing input consumption (fewer seeds and less fertilizer) and production costs.

Rice value chain intervention phases include Access to Inputs, Production, Post-Harvest Operations, Storage, Processing, Transport, Marketing, Good Governance, Norms and Phytosanitary Measures, Credit and Financing. Below is a sample of some of the WINNER-supported activities in the rice value chain:

Table 1 – Sample of WINNER Activities in the Rice Value Chain in Cul de Sac

Phase	Activities
Production	<ul style="list-style-type: none"> • Providing inputs through input stores • Mechanized land preparation • Rehabilitated irrigation • Extension services • System of Rice Intensification (SRI)
Post-Harvest and Processing	Two mills Tarps Storage facilities
Commercialization	Established a 4P (producer public private partnership) with Haiti International Traders (HIT)) and farmers of Thomazeau in Cul de Sac

2.2 Survey Design and Farmer Sample

The purpose of the survey was to determine the feasibility, awareness and need for mobile money services by farmers. The survey design took into account some of the results of the WINNER SMS-based agriculture information system survey conducted in 2010 and assumed these results still held true. For instance, the SMS survey showed that some potential barriers to the use of an SMS-based agriculture information system, specifically cell signal in Cul de Sac, Kreyol literacy, and use of SMS, are non-issues. Therefore the mobile money survey omitted these questions and focused more on access

to and usage of bank services and feasibility of using mobile money. WINNER also met with USAID/HIFIVE at the start of this study and before designing the survey to understand the current state of mobile money in Haiti and gather their input and recommendations on the issues and approach WINNER should consider.

We chose to focus on a subset of rice farmers in Cul de Sac because:

1. **It has a very strong intermediary.** Haiti International Traders (HIT) has been working closely with approximately 10 farmer associations belonging to a federation called FEDEPAT⁴, representing roughly 2000 farmers. HIT has contracts with large buyers of rice, such as schools, and has worked with FEDEPAT and the associations to create a system of credit underpinned by contractual agreements stating the amount of rice that will be grown and the price that will be paid. The credit is paid to the farmers to enable them to purchase input supplies for rice.
2. **Financial needs of these farmers have been clearly identified.** Farmers need to spend approximately 40,000 HTG (1000 USD) for seeds, fertilizer, tractor and tilling, and farm laborers. The “boutique d'intrants agricoles” or input supply stores sell the inputs and rent the tractor service. A detailed financial flow diagram in the Appendix on page 21 isolates the financial transactions in more detail.
3. **It is geographically concentrated in the Thomazeau area**, making it easier to build an agent network and coordinate the pilot.
4. **The growing season is 3-4 months**, and a new season starts this month (May 2012), which is a sufficient time for a pilot and potentially enable an option to extend the pilot to a second season in which adjustments and lessons from the first growing season can be applied.
5. **There is the potential for a larger ecosystem.** In addition to the boutiques, the associations also run other businesses and services, for example schools, chicken coops, and health clinics. HIT has plans to help the associations start egg coops and pig farms in the near future.

We conducted the surveys at the Bas Boen Rural Development Center or CRDD (Centre Rural de Développement Durable) in Plaine du Cul de Sac, with 160 surveys completed by farmers belonging to one of the 10 associations under FEDEPAT.

2.3 Farmers' Financial Needs and Challenges

As mentioned previously, farmers have high up-front costs at the beginning of the growing season, with approximately 40,000 HTG typically required to start planting a crop. The breakdown is as follows:

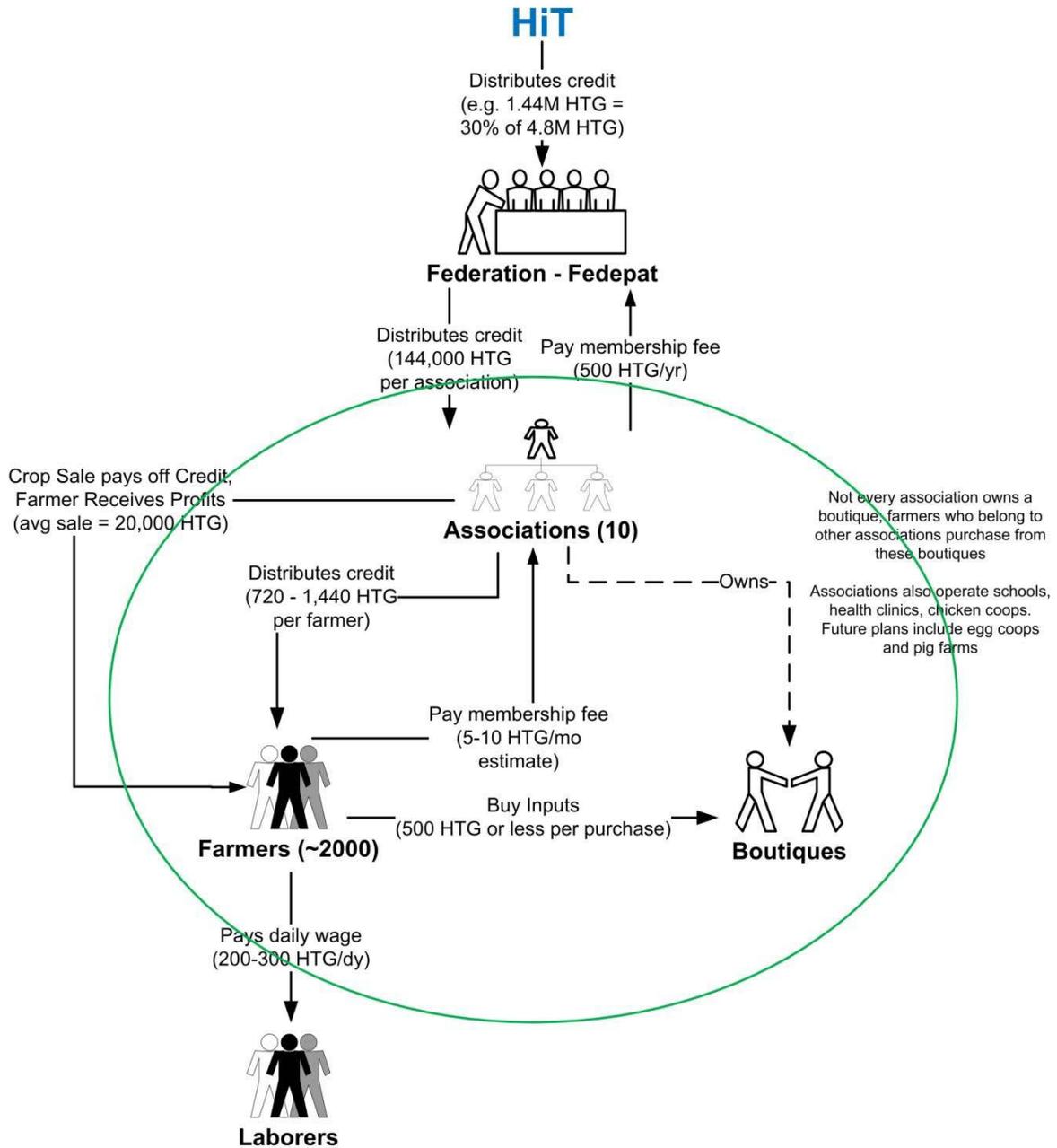
- Seeds (360 HTG)
- Tilling, tractor (5000 HTG)

⁴ FEDEPAT has 46 associations, 10 of which work with HIT.

- Fertilizer (6000 HTG)
- Farm labor (28,000 HTG)

The diagram below illustrates at a high level the flow of credit from HIT through FEDEPAT to the farmer associations to the farmers, as well as other financial transactions.

Figure 4 - Haiti International Traders and Rice Farmer Financial Transactions



The green circle highlights the actors that engage in the bulk of the financial transactions. The farmer may make multiple purchases at the boutiques and hire farm laborers for short stints at multiple times during the season.

WINNER provides the inputs and technical assistance but not the financing. The rice partner HIT is providing financing for this subset of rice farmers but cash distribution to farmers is slow, inefficient, and more risky. Mobile money could be a faster, more secure way to provide financing and to transact.

The main purpose of this analysis of the farmers' financial transactions was to identify opportunities for intervention with mobile money. We sought to understand the current process of advancing funds/providing credit and the current financial activities related to farming within this subset of the rice value chain. One primary question we sought to answer was the value and volume of financial transactions and whether the financial transactions in this subset of the rice value chain could fit within the current mobile money transactions limits (see Appendix section 5.2 page 23), or whether only a subset of the transactions, such as only the credit flow or only purchases at the input stores, or all farming transactions would be suitable for mobile money. We also wanted to understand which actors in this rice value chain subset could become mobile money agents. The boutiques are the most obvious candidates. This analysis also provided insights that we incorporated into the design of the survey and survey questions.

A more detailed diagram is provided in the Appendix section 5.1 on page 21, describing step by step the process in which these four key actors in this subset of the rice value chain (HIT, FEDEPAT, the associations, and the farmers) determine how much rice they will produce and the amount of financing needed. The diagram also captures the current method for transferring the funds, whether it is via check, wire transfer, or cash. Generally the transfer of funds today from HIT to FEDEPAT and to the farmer associations is via check or wire transfer through their Sogebank bank accounts. The boutiques however do not all necessarily have bank accounts.

As can be seen in the financial flow diagram above and in the Appendix, HIT distributes funds throughout the growing season at the beginning, middle, and end of the season, for instance in installments of 30%, 30%, 20%, and 20% of the total amount of financing needed. At the beginning of the season, the farmer will use the funds at the boutique to purchase seeds and fertilizer and rent the use of a tractor for tilling and hire farm laborers. A farmer may hire laborers five or six times over the season, and at harvest time at the end of the season the farmer may need to hire laborers again. The associations supervise the land so they will know that the land has been planted before advancing the next installment of financing, or will know when fertilizer is needed, for example.

With this financial flow analysis it became clear that the typical transactions by a farmer and the frequency of these transactions are within the mobile money transaction limits.

The profits from the sale of a crop, however, could exceed the maximum regular wallet balance, but this could be worked around by splitting the payment into two transactions, not ideal but possible. The amount of funds provided as credit at the early phases of the season between HIT, FEDEPAT, and the farmer associations are higher than the maximum balance allowed on a regular mobile wallet but the solution to this could be for these actors to become mobile money agents. Agents have much higher wallet limits than a regular wallet and some transaction types have no wallet limit (see Appendix section 5.4 page 27 for tables of the types of agents, criteria to become an agent, and agent wallet limits).

3 SUMMARY OF SURVEY RESULTS

As mentioned, the purpose of the survey was to determine the feasibility, awareness and need for mobile money services by farmers. The survey focused on access to and usage of bank services and mobile money and identifying any potential barriers to using mobile money. Part of the goal was to understand both the real costs and opportunity costs for farmers to transact at a bank or to cash a check, in order to begin to compare the cost/benefit of using mobile money versus cash. A more detailed summary of the survey results is included in Appendix page 30.

3.1 Feasibility of Mobile Money

Phone ownership, power to charge a phone, possession of an official ID, and the average amount of a farm-related purchase by a farmer were four critical potential barriers to using mobile money that the survey covered. The survey results show that these are largely not a concern: 94% of farmers own a phone and 91% have an official ID. Farmers have already invested in a phone and SIM so for most a phone will not be a new expense that they must incur to use mobile money.

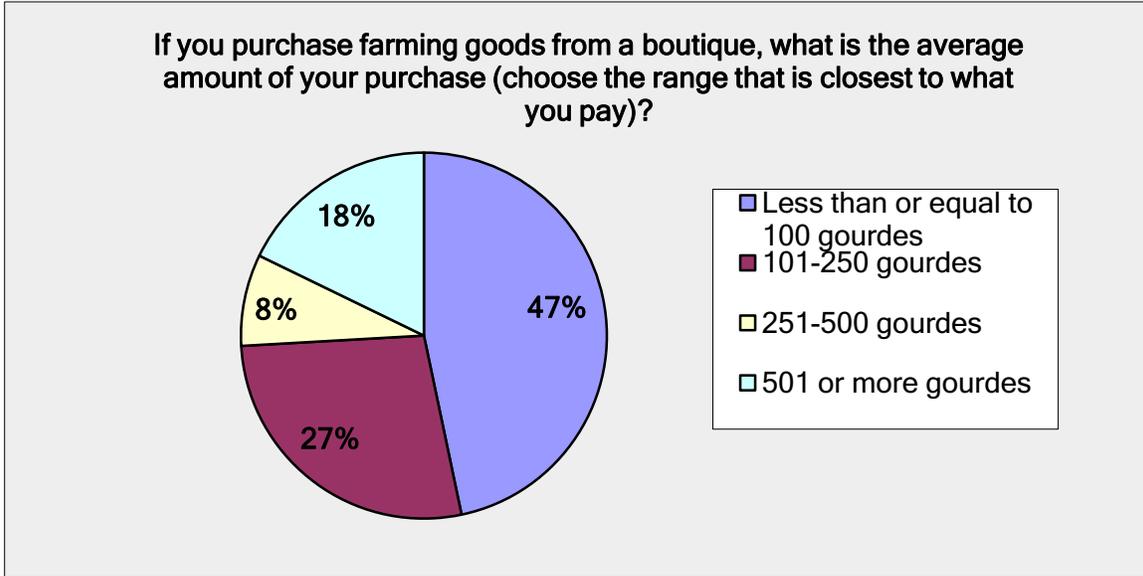
The cost of a phone continues to fall and should not prove a barrier for the use of mobile money. The most inexpensive new phones listed on Digicel's web site are 200-400 HTG⁵ or 5 -10 USD. The cost of the SIM is roughly 150-220 HTG or 4-6 USD.

The average size of a farmer's purchase at a boutique is well within the maximum size of a transaction allowed by Tcho Tcho and T-Cash, even for the mini-wallet, with 47%

⁵ See the ZTE phone at http://www.digicelhaiti.com/fr/phones/phones_list.php?manufacturer=18 , Coral at http://www.digicelhaiti.com/fr/phones/phones_list.php?manufacturer=4 and Samsung at http://www.digicelhaiti.com/fr/phones/phones_list.php?manufacturer=12.

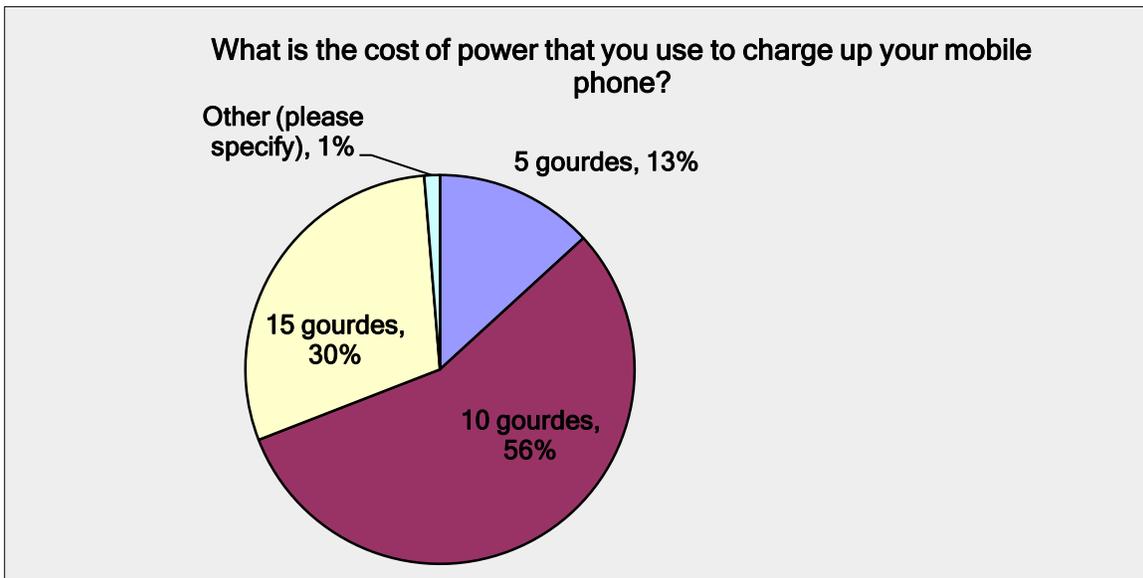
reporting that their average purchase is 100 HTG or less, and overall 82% responding that their average purchase is less than 500 HTG.

Figure 5 - Average Amount of Farmer's Purchase



Power appears to be a moderate expense according to the survey responses:

Figure 6 - Cost of Power to Charge a Mobile Phone



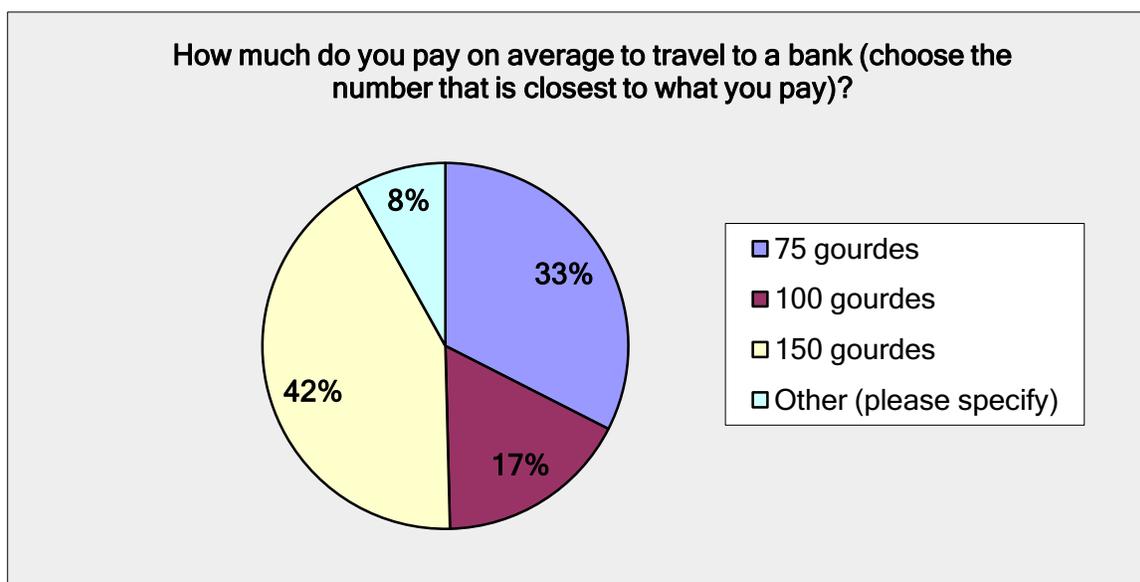
3.2 Financial Transaction Costs and Activities

About 31% of farmers responded “yes” to the question “Do you have a bank account?” Since there are relatively few bank branches in rural areas, and most farmers do not own a car, the farmer must pay to travel to a bank⁶.

We asked about costs such as transportation and to stand in line to obtain an initial comparison of the cost of cash and traditional financial services versus mobile money. While most would consider cash to be fee-free, “hidden” costs like transportation and opportunity costs such as time are real costs. Whether in real-life farmers using mobile money will compare the mobile money fees to these hidden/opportunity costs is unclear at this point, and also unclear at this stage is which side of the equation more farmers will side with. In a pilot we would attempt to answer these questions.

We found that travel to the bank is expensive, with 42% of respondents paying 150 gourdes.

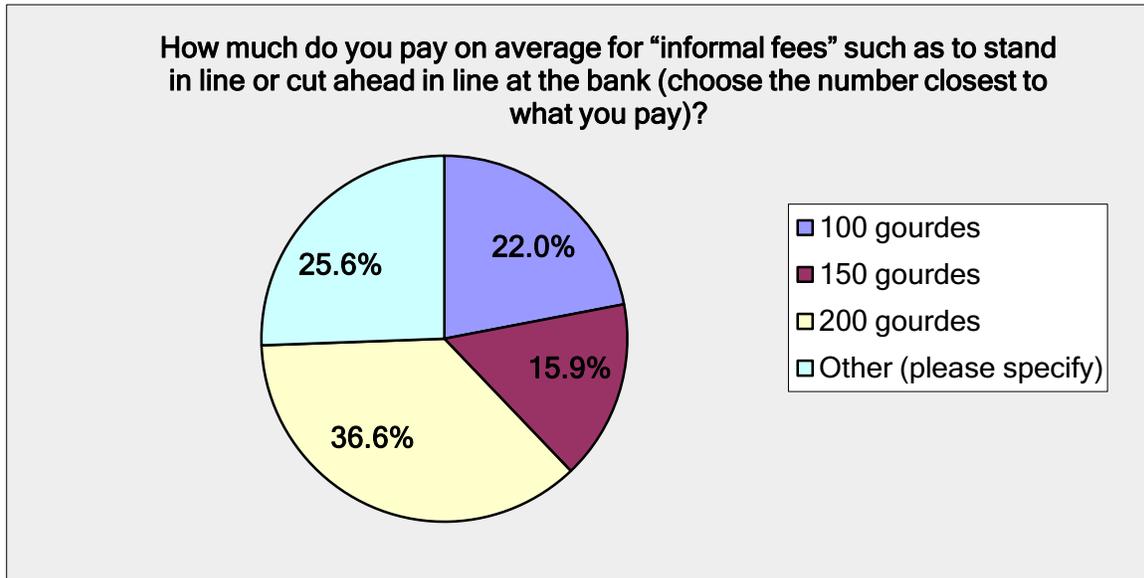
Figure 7 - Cost to Travel to a Bank



⁶ For a qualitative snapshot of several costs to transfer money from person to person within Haiti by different means (in-person visit, send money with a boat captain, use a money transfer service, see http://www.imtfi.uci.edu/files/imtfi/docs/2010/mmm_time_and_cost_flyer_feb20111.pdf).

We know that people sometimes pay others to stand in line at the bank. We asked about this and similar “informal fees”, and the cost is high:

Figure 8 - Cost to Stand in Line and Other Informal Fees



Of those who responded to this question, the largest proportion of responses, about 37%, is paying the most expensive rate.

We wanted to understand a bit about the farmers’ experience with using formal banking services and their familiarity with transactions like deposits and withdrawals. We asked which financial institution they use for banking or check cashing services:

Table 2 - Financial Institutions Used by Farmers

WINNER - Mobile Banking Ag Value Chain Survey

Where do you go for your banking and/or check cashing services (check all that apply)?		
Answer Options	Response Percent	Response Count
Scotia Bank	1.1%	1
Sogebank	48.4%	46
Unibank	41.1%	39
Sogesol	3.2%	3
BNC	13.7%	13
BUH	2.1%	2
Capital Bank	8.4%	8
Fonkoze	10.5%	10
ACME	0.0%	0

MCN	0.0%	0
Other (please specify)	6.3%	6
<i>answered question</i>		95
<i>skipped question</i>		65

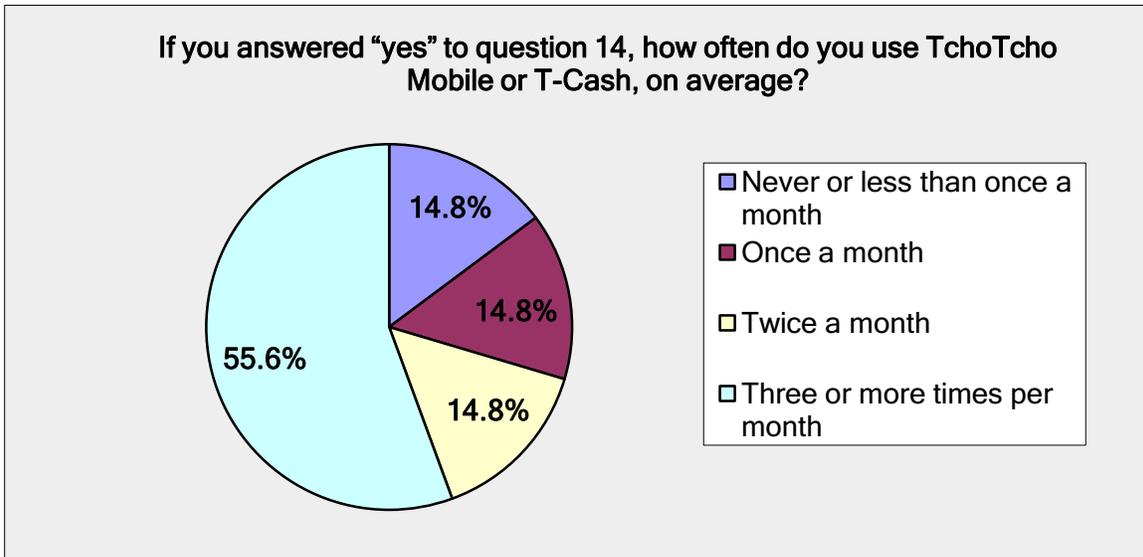
Quite a few respondents did not answer the question, and we suspect it may be in part due to privacy concerns. Two people actually wrote “prive” in their “Other” response.

3.3 Awareness and Usage of Mobile Money

A high percentage of farmers surveyed, 92%, have heard of TchoTcho or T-Cash. Not many have actually used the service but 81% stated that they are willing to use mobile money with other farmers or members of the association and federation.

Interestingly, 27 respondents or 18% have used TchoTcho or T-Cash or both, and the majority uses it frequently, at least three times per month.

Figure 9 - Frequency of Mobile Money Usage



The analysis of the financial flows and the survey results confirm that it is feasible to pilot mobile money with the selected subset of rice farmers in Thomazeau associated with FEDEPAT and financed by Haiti International Traders. WINNER has also had several detailed discussions with Tcho Tcho and T-Cash representatives to explain the rice value chain and financial flows to them and both parties were able to provide a recommended approach on their platform, in particular recommending options for the type of agent that HIT, FEDEPAT, the associations and boutiques should become.

4 BRIEF IMPLEMENTATION STRATEGY

4.1 Recommendation - Proceed with Pilot

The goal of the pilot would be to determine whether mobile money is beneficial to farmers and facilitates and accelerates the flow of finance in the agriculture value chain, thereby strengthening the market through increased productivity and efficiency in this subset of the rice value chain.

The pilot would include using mobile money to distribute credit originating from HIT and transferred through FEDEPAT and the associations to the farmers and for payments between farmers, associations, boutiques, and laborers.

Another positive indication for the pilot is that this particular subset of the rice value chain has the potential to expand into a more extensive ecosystem that could sustain mobile money. Today, depending on the needs of its area, the associations also run schools, health clinics, and chicken coops in addition to the boutiques. Farmers pay school fees to the schools, the schools pay teacher salaries, and some of the teachers are also farmers. For the chicken coops, chicks are purchased and raised for sale to buyers such as restaurants or employers with large feeding programs for their employees. Feed must be purchased for the chicks. They are killed at four weeks, so every four weeks the chickens are processed and there is a sale of fresh-killed chickens. The by-products are sold as well – the beak, organs, and feathers – and the head can be used in soup to feed the community, so more value is gained from this process than from raising and selling live chickens. Young chicks are bought again and the cycle repeats. As of the completion of this assessment, HIT planned over the next month to interest the associations in starting egg coops and pig farms.

Digicel is planning a new mobile money platform but they recommend not waiting for the new platform and proceeding with the pilot because valuable lessons will be learned, and education and training of the farmers on mobile money concepts take time.

Even though there are two mobile money platforms and no one knows if the new platform and services will resemble Tcho Tcho or the T-Cash, from a business standpoint we believe it is more prudent for the pilot to run on Digicel's Tcho Tcho platform.

In order to proceed quickly with the pilot, all the major parties (Digicel, WINNER, HIT) have stated that they are willing to implement the pilot within the existing limits and definitions and to work around any limitations if needed, and USAID/Haiti expressed support for this approach.

WINNER and HIFIVE have agreed to collaborate and will work closely together to design and implement the pilot.

4.2 Next Steps

To proceed with the pilot, the next steps would be to:

1. Create an agreement detailing the terms of the pilot/trial with all parties. WINNER intends to collaborate with HIFIVE especially on the financial literacy training and agent network development.
2. Create a scope of work for the pilot and obtain USAID approval.

The scope of work will include a project plan for the pilot: the tasks, timeline, resources and budget needed, and deliverables. The tasks include developing the plan for education and training on mobile money and financial literacy, the agent network development and agent training plan, and the monitoring and evaluation plan.

The monitoring and evaluation plan will likely include a more detailed exploration of the financial transactions, behavior, and attitudes of the farmers documented through both qualitative and quantitative approaches such as focus groups and surveys. This data would be collected prior to the farmers' use of mobile money and after they begin using mobile money during the pilot. The feasibility study documented in this report conducted a rapid survey in a short time frame and many more questions could have been asked.

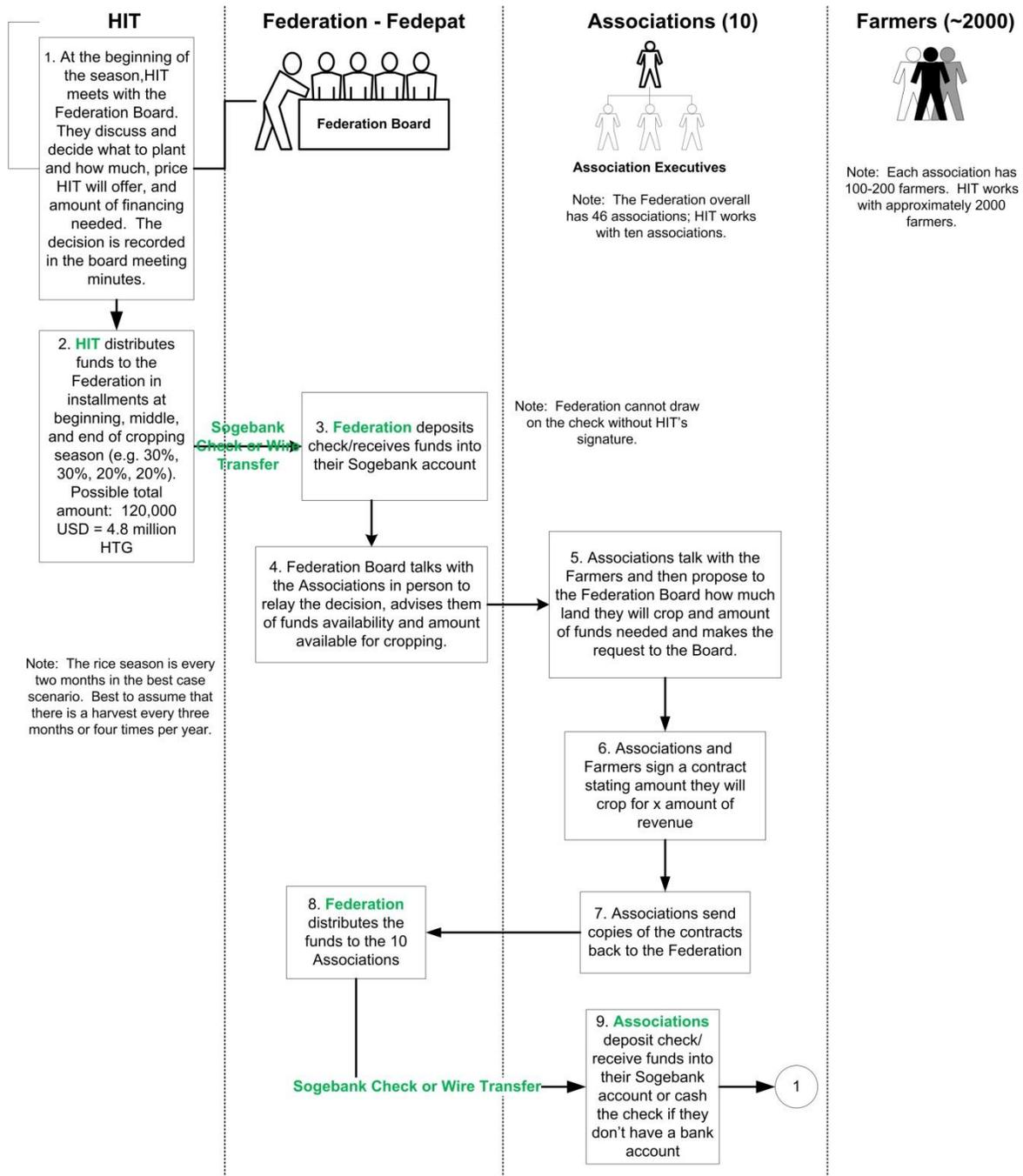
3. The pilot would run for three months, which is the length of the rice season, with the goal to start this summer 2012.

During the pilot we would seek to understand the cost/benefit to farmers and to HIT, FEDEPAT, the associations, and boutiques. One of the critical questions will be whether farmers will find enough advantages to using mobile money that they will be willing to pay the transaction fees. Interestingly both Tcho Tcho and T-Cash have multiple options on how transaction fees are allocated. For instance, when the association advances funds to the farmer, it could be treated as a "cash-in" or deposit, which has no fee, instead of as a P2P transfer, which does have a fee. The association as the agent would also earn a commission. Another option would be to allocate the fees to HIT or FEDEPAT so that the associations and the farmers would never incur a fee. This could be an acceptable cost, given that the mobile money system will provide reporting capabilities and accurate data that HIT and FEDEPAT do not currently have, but any deviation from the standard mode of operation requires further consideration.

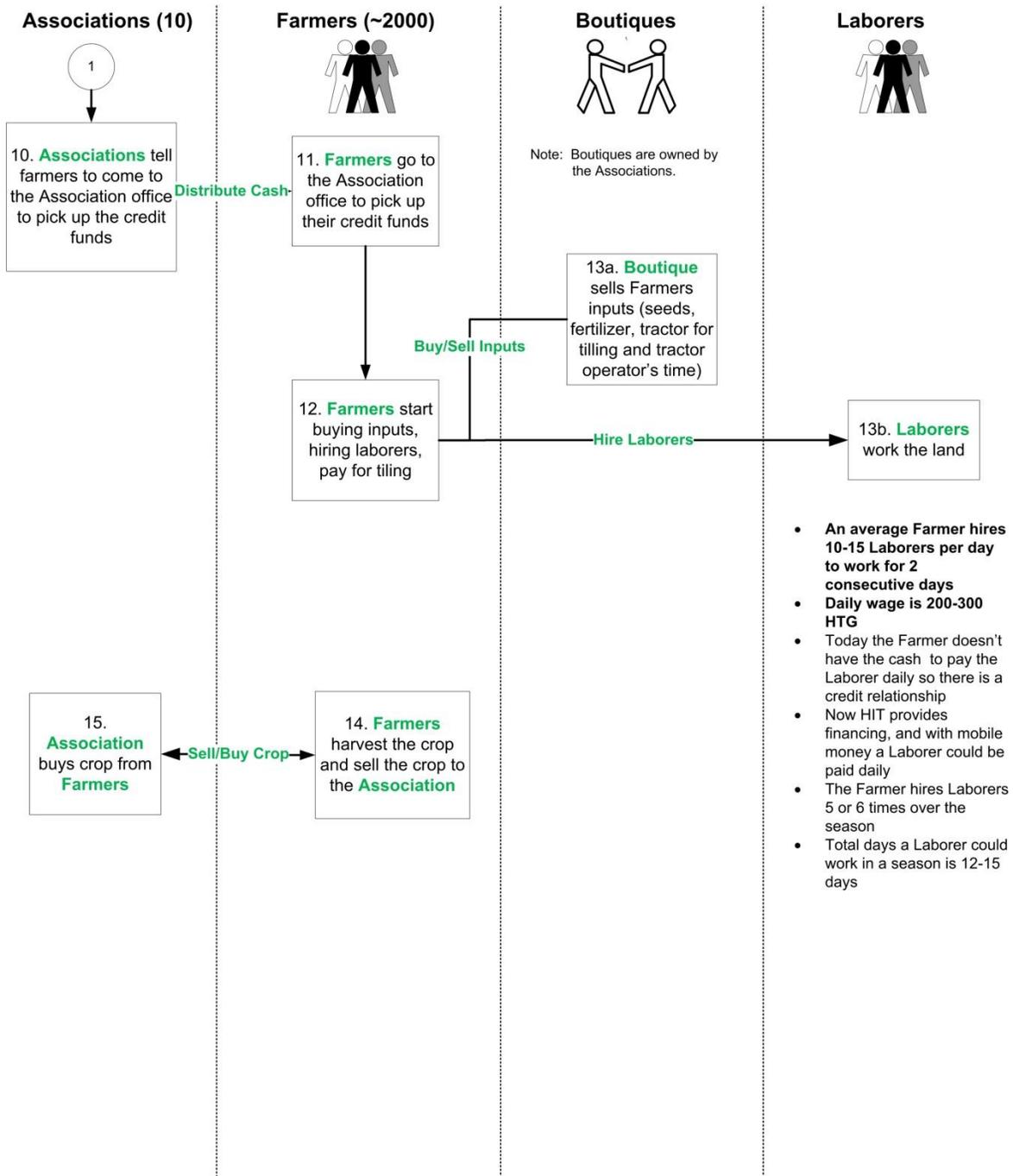
5 APPENDIX

5.1 Detailed Haiti International Traders (HIT) – Rice Farmer Investment Flow

Haiti International Traders (HIT) – Rice Farmer Investment Flow



Haiti International Traders (HIT) – Rice Farmer Investment Flow



5.2 Side-by-side Comparison of T-Cash and Tcho Tcho Mobile Money Service

Provided by USAID HIFIVE. Since this chart was created, T-Cash has launched a regular wallet with KYC requirements and Tcho Tcho launched a mini-wallet.

T-Cash vs. Tcho Tcho Mobile A comparison of two mobile money services (as of March 16, 2011)		
	T-Cash	Tcho Tcho Mobile
MNO	Voilà	Digicel
Partners		
Bank partners	Unibank	Scotiabank
Mobile Money platform provider	More Magic	Yellow Pepper
Technical implementation		
Type	Mobile wallet (as opposed to mobile access to a bank account)	Mobile wallet (as opposed to mobile access to a bank account)
Technology	USSD commands	Interactive USSD Menu
Registration		
KYC	No ID required	Valid Government-issued ID required
Method	USSD dial (*700#) – Self registration	KYC form to fill at registration
Limits	(mini-wallet service)	(regular wallet)
Maximum balance allowed	HTG 2.500	HTG 10.000
Maximum per transfer	HTG 1.500	HTG 10.000
Maximum transactions per day	HTG 5.000	HTG 20.000
Maximum transactions per month	HTG 20.000	HTG 60.000
Maximum number of transactions per day (send)	10	10
Maximum number of transactions per month (send)	150	n/a
Maximum transactions per day (receive)	10	n/a
Maximum transactions per month (receive)	150	n/a
Regulatory		
Type	<ul style="list-style-type: none"> - Authorization from the Central Bank - Protocol with the telecom regulator 	<ul style="list-style-type: none"> - Authorization from the Central Bank - Protocol with the telecom regulator - Follows Central Bank published guidelines

5.3 Current TchoTcho and T-Cash Fees

Below are Digicel’s pricing for TchoTcho Mobile and Voila’s pricing for T-Cash as of May 21, 2012. Digicel is in the process of revising their pricing structure so this may change. We heard from HIFIVE that Digicel is discussing making transactions of 250 gourdes or less fee-free, which would make mobile money more affordable and therefore more attractive to use.

Pricing for Voila/T-Cash is a little different, lower actually at the lower transaction amounts for a person-to-person (P2P) transfer, and they have a separate fee chart for purchases from a merchant (fees are the same as P2P), but the majority of the fees are the same as Tcho Tcho.

All of this may change as Digicel finalizes its strategy for TchoTcho and T-Cash as a result of the sale of Voila to Digicel.

Current Pricing*

Transaction Type	Transaction Range		Customer Charge (HTG)
	Minimum	Maximum	
Registration	0		0
Cash in	25	10,000.00	0
Cash out (TchoTcho or non-TchoTcho)	5	1,000.00	10
	1,000.01	2,500.00	20
	2,500.01	5,000.00	40
	5,000.01	10,000.00	60
Send money a TchoTcho Customer (P2P)	5	1,000.00	6
	1,000.01	2,500.00	15
	2,500.01	5,000.00	25
	5,000.01	10,000.00	30
Send money to a non-TchoTcho Customer (when service is available) <i>(Not Available Currently)</i>	25	1,000.00	10
	1,000.01	2,500.00	40
	2,500.01	4,000.00	60
<i>Payroll Fee – Minimum of HTG 50 and Maximum of HTG 70 per beneficiary.</i>			
<i>Inquiry – Free for first transaction in a day, subsequent transactions attract 1HTG per transaction for the day.</i>			

* In the process of revision

Tarification - Clients

Type de transaction	Montant de la Transaction en HTG	Tarif
Retrait du compte T-Cash	0 à 1,000	10 HTG
	1,001 à 2,500	20 HTG
	2,501 à 5,000	40 HTG
	5,001 à 10,000	60 HTG



Tarification - Clients

Type de transaction	Montant de la Transaction en HTG	Tarif
Renflouement		Gratuit
Transfert de personne à personne	1 à 25	4 transactions par jour gratuites vers le même destinataire
	26 à 500	1 HTG par 100 HTG
	501 à 1,000	6 HTG
	1,001 à 2,500	15 HTG
	2,501 à 5,000	25 HTG
	5,001 à 10,000	30 HTG



Tarification - Clients

Type de transaction	Montant de la Transaction en HTG	Tarif
Achat de marchandise	1 à 25	4 transactions par jour gratuites vers le même destinataire
	26 à 500	1 HTG par 100 HTG
	501 à 1,000	6 HTG
	1,001 à 2,500	15 HTG
	2,501 à 5,000	25 HTG
	5,001 à 10,000	30 HTG



5.4 Current TchoTcho and T-Cash Agent Definitions

Below are Digicel’s agent definitions for TchoTcho Mobile and Voila’s agent definitions for T-Cash as of May 21, 2012. Again these are subject to change as Digicel finalizes its strategy for TchoTcho and T-Cash as a result of Digicel’s acquisition of Voila.

Types of Agents currently available

Item	Normal Agent	Super Agent
KYC	<ul style="list-style-type: none"> Valid Gov’t Approved photo ID. Complete Agent Form Proof of Residence 	<ul style="list-style-type: none"> Valid Gov’t Approved photo ID Valid Patent Certificate Complete Agent Form
Bank Account	No	Yes
Wallet Size	\$5,000 (HTG200,000)	\$25,000 (HTG1,000,000)
Daily Transaction Value Limit	\$5,000 (HTG200,000)	\$25,000 (HTG1,000,000)
Monthly Transaction Value Limit	Unlimited	Unlimited
Transaction Frequency Limit	Up to 500 transactions per day	Unlimited
Coding	Department, Agent Type and Agent Number	



Merchants are a type of Agent.

Types of Merchants currently available

Item	Informal Merchants	Merchant Silver	Merchant Gold
KYC	<ul style="list-style-type: none"> Valid Gov't Approved photo ID Complete Merchant Form 	<ul style="list-style-type: none"> Valid Gov't Approved photo ID Proof of Address Complete Merchant Form 	<ul style="list-style-type: none"> Valid Gov't Approved photo ID Valid Patent Certificate Complete Merchant Form
Bank Account	No	No	Yes
Wallet size	\$1,500 (HTG60,000)	\$2,500 (HTG100,000)	\$25,000 (HTG1,000,000)
Daily Transaction value limit	\$1,500 (HTG60,000)	\$2,500 (HTG100,000)	\$25,000 (HTG1,000,000)
Monthly Transaction Value limit	Unlimited	Unlimited	Unlimited
Transaction Frequency Limit	Up to 500 transactions per day	Up to 1,000 transactions per day	Unlimited
Coding	Department, Merchant Type and Merchant Number		

Politiques d'affiliation

Type	Conditions d'affiliation	Conditions d'échelle
Super Agent	Formulaire d'application Contrat d'adhésion Patente et Matricule fiscale Acte constitutif Photo local Pièces d'identité	Compte a la Unibank Renflouement de 2 million gourdes Balance moyenne 1.5 million gourdes par mois
Agent dépendant	Formulaire d'application Contrat d'adhésion Patente et Matricule fiscale Acte constitutif Photo local Pièces d'identité	Compte a la Unibank (optionelle) Chiffre d'affaire de 10,000 HTG par jour Renflouement de 30,000 HTG Balance moyenne 10,000 par mois
Sous agent/ Commerçant	Formulaire d'application Engagement du sous agent Pièce d'identité	



Catégories de compte T-Cash

1. **Commerçants/Agents**
 - a) Compte de service (KYC) a des limite de
 - b) Sous-agents 100K htg
Agents Dependent 500K htg
Super Agents 2.5 million htg

2. **Clients/Particuliers**
 - a) Porte-monnaie de Base Balance Maximum 2.500 HTG
 - b) Porte monnaie privilégié (KYC) Balance Maximum 10.000 HTG



5.5 Survey Summary Results

WINNER - Mobile Banking Ag Value Chain Survey 

1. Do you own a mobile phone?

		Response Percent	Response Count
Yes		94.4%	151
No		5.6%	9
answered question			160
skipped question			0

2. Who is your primary mobile operator (the one you use the most)?

		Response Percent	Response Count
Comcel/Voila		9.5%	14
Digicel		87.8%	130
Natcom		2.7%	4
answered question			148
skipped question			12

3. What is the cost of power that you use to charge up your mobile phone?

		Response Percent	Response Count
5 gourdes		13.2%	20
10 gourdes		55.9%	85
15 gourdes		29.6%	45
Other (please specify)		1.3%	2
answered question			152
skipped question			8

4. Do you have a bank account?

		Response Percent	Response Count
Yes		31.0%	48
No		69.0%	107
answered question			155
skipped question			5

5. Do you have an official ID?

		Response Percent	Response Count
Yes		92.2%	142
No		7.8%	12
answered question			154
skipped question			6

6. Where do you go for your banking and/or check cashing services (check all that apply)?

		Response Percent	Response Count
Scotia Bank		1.1%	1
Sogebank		48.4%	46
Unibank		41.1%	39
Sogesol		3.2%	3
BNC		13.7%	13
BUH		2.1%	2
Capital Bank		8.4%	8
Fonkoze		10.5%	10
ACME		0.0%	0
MCN		0.0%	0
Other (please specify)		6.3%	6
answered question			95
skipped question			65

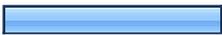
7. How often do you go to the bank or to cash a check, on average?

		Response Percent	Response Count
Never or less than once a month		56.8%	84
Once a month		24.3%	36
Twice a month		6.1%	9
Three or more times a month		12.8%	19
answered question			148
skipped question			12

8. Why do you go to the bank (check all that apply)?

		Response Percent	Response Count
To withdraw cash		46.2%	55
To cash a check		47.1%	56
Receive a remittance		52.9%	63
To deposit cash		45.4%	54
To deposit a check		17.6%	21
Other (please specify)		3.4%	4
answered question			119
skipped question			41

9. How much do you pay on average to travel to a bank (choose the number that is closest to what you pay)?

		Response Percent	Response Count
75 gourdes		32.5%	40
100 gourdes		17.1%	21
150 gourdes		42.3%	52
Other (please specify)		8.1%	10
answered question			123
skipped question			37

10. How much do you pay on average for “informal fees” such as to stand in line or cut ahead in line at the bank (choose the number closest to what you pay)?

		Response Percent	Response Count
100 gourdes		22.0%	18
150 gourdes		15.9%	13
200 gourdes		36.6%	30
Other (please specify)		25.6%	21
answered question			82
skipped question			78

11. Would you be willing to use an ATM?

		Response Percent	Response Count
Yes		92.7%	140
No		2.0%	3
Maybe		5.3%	8
answered question			151
skipped question			9

12. If you purchase farming goods from a boutique, what is the average amount of your purchase (choose the range that is closest to what you pay)?

		Response Percent	Response Count
Less than or equal to 100 gourdes		46.7%	63
101-250 gourdes		27.4%	37
251-500 gourdes		8.1%	11
501 or more gourdes		17.8%	24
answered question			135
skipped question			25

13. Have you heard of TchoTcho Mobile or T-Cash?

		Response Percent	Response Count
Yes		91.7%	143
No		8.3%	13
answered question			156
skipped question			4

14. Have you used TchoTcho Mobile or T-Cash (choose one)?

		Response Percent	Response Count
I have used TchoTcho		11.9%	18
I have used T-Cash		4.6%	7
No, I have not used either one		82.1%	124
I have used both		1.3%	2
answered question			151
skipped question			9

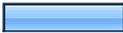
15. If you answered “yes” to question 14, how often do you use TchoTcho Mobile or T-Cash, on average?

		Response Percent	Response Count
Never or less than once a month		14.8%	4
Once a month		14.8%	4
Twice a month		14.8%	4
Three or more times per month		55.6%	15
answered question			27
skipped question			133

16. Is there a TchoTcho Mobile or T-Cash agent located conveniently near you?

		Response Percent	Response Count
Yes		14.4%	21
No		34.9%	51
Don't know		50.7%	74
answered question			146
skipped question			14

17. Would you be willing to send or receive money with others in the association and federation (e.g. between farmers and a boutique) using a mobile phone?

		Response Percent	Response Count
Yes		80.9%	123
No		1.3%	2
Maybe		17.8%	27
answered question			152
skipped question			8

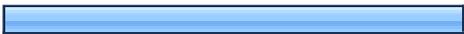
18. Are you currently using the WINNER SMS service?

		Response Percent	Response Count
Yes		58.2%	89
No		41.8%	64
answered question			153
skipped question			7

19. If you answered yes to question 18, are you satisfied with the SMS service?

		Response Percent	Response Count
Very satisfied		41.7%	35
Satisfied		29.8%	25
Somewhat satisfied		25.0%	21
Not satisfied		3.6%	3
answered question			84
skipped question			76

20. What are your three most frequent non-agriculture expenditures (choose the top 3)?

		Response Percent	Response Count
Health care		69.4%	109
Education (e.g. school fees, uniforms, books)		86.0%	135
Food and cooking supplies (e.g. cooking oil, pots)		63.7%	100
Transportation (e.g. tap-taps)		52.2%	82
Other (please specify)		1.9%	3
answered question			157
skipped question			3

21. Your gender:

		Response Percent	Response Count
Male		66.9%	107
Female		33.1%	53
		answered question	160
		skipped question	0

22. Age:

		Response Percent	Response Count
21 and under		14.2%	22
22 - 35		51.6%	80
36 - 50		23.2%	36
51 - 65		9.0%	14
66 and over		1.9%	3
		answered question	155
		skipped question	5

23. Where is your farm located (check all that apply)?

		Response Percent	Response Count
Cotin		30.8%	49
Merceron		27.0%	43
Costard		11.9%	19
Racket		3.1%	5
Joano		8.2%	13
Amba Dig		6.9%	11
Despuizo		1.3%	2
Dumuilso		13.2%	21
Pont Janvier		16.4%	26
La Perriere		22.0%	35
answered question			159
skipped question			1

24. Your name (optional):

	Response Count
	156
answered question	156
skipped question	4

25. Your mobile number (optional)

	Response Count
	147
answered question	147
skipped question	13

26. Survey number:

	Response Count
	160
answered question	160
skipped question	0