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INTERNATIONAL RESCUE COMMITTEE

IMPROVING LARGE-SCALE MOBILE MONEY DISBURSEMENTS

Overcoming Liquidity Constraints in Humanitarian Bulk Payments

CONTENTS

The International Rescue Committee (IRC) responds to the world's worst humanitarian crises and helps people to survive and rebuild their lives. Founded in 1933 at the request of Albert Einstein, the IRC offers lifesaving care and life-changing assistance to refugees forced to flee from war, persecution or natural disaster. At work today in over 40 countries and 26 U.S. cities, we restore safety, dignity and hope to millions who are uprooted and struggling to endure.

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EXECUTIVE SUMMARY

Humanitarian mobile money disbursements are often hampered by liquidity and performance constraints throughout the cash delivery ecosystem – from Retail Agents to mobile money service providers. This report documents and provides an analysis of the challenges encountered in the process of delivering humanitarian bulk payments and presents key recommendations for humanitarian organizations, mobile money service providers, and donors alike to overcome these constraints. This research draws from programmatic experiences in Pakistan as well as detailed engagement with the major mobile money providers, Franchises, Retail Agents and humanitarian practitioners throughout in the Pakistan market. The recommendations draw from the key findings and the discussion at a stakeholder workshop that the IRC convened in Islamabad, Pakistan, which brought together mobile money service providers and humanitarian actors.

Several key themes and findings emerged during the semi-structured interviews. Overall, mobile money service providers have experience working with humanitarian agencies and value this business relationship, though working with humanitarian agencies presents its own set of unique challenges. For example, humanitarian bulk payments result in a significant increase in the transaction volume and size for Retail Agents over a short period of time in hard to access areas. Meeting these needs requires additional and advance planning to ensure liquidity. This planning can be complicated by: (i) gaps in information about the number and geographic coverage of Retail Agents, as Retail Agents are not unique to a given service provider and/or may no longer be actively participating in cash-out activities; and (ii) a lack of understanding about the prevailing models used by mobile money services providers, the different actors involved at the various stages, their roles and responsibilities, and where to direct the relevant communication about specific issues encountered.

From the perspective of the Retail Agent, their ability to manage liquidity is also often hindered by a lack of training, financial support, and advance notice of bulk payments from those responsible. Additionally, Retail Agents may resist participating in bulk payments as there is no increased benefit or fee that may offset the increased risk associated with the larger amounts of cash needed for such payments. For humanitarian agencies, understanding the landscape and different models involved in mobile money payments can help them streamline communications with essential players in the process and can inform how they structure the payment of fees to service providers.

Recommendations for humanitarian organizations and mobile money service providers to address cash-out constraints in bulk mobile money payments

Mobile money service providers, either directly or through Super Agents, should ensure Retail Agents are supported with the necessary training and tools/products to manage liquidity

Humanitarian agencies should foster relationships directly with other actors involved in the mobile money cash-out process and proactively communicate with them when planning for bulk distributions

Mobile money service providers should provide advance notification of upcoming bulk payments to the Super Agent with the requirement that the Super Agent notify the Franchises and Retail Agents a predefined period of time in advance of the actual disbursement

Humanitarian agencies should strengthen efforts to educate the beneficiary population on financial literacy, financial products and expectations for interacting with financial service providers

Humanitarian agencies should encourage mobile money service providers to alter commission structures and utilize incentives in ways that promote participation in bulk payments by Retail Agents and proactive liquidity management support by Franchises

Humanitarian agencies should leverage their service agreements with mobile money providers to ensure adequate delivery of cash-out services

Humanitarian organizations should proactively seek opportunities to build their capacity on digital payment solutions and their understanding of the different mobile money banking model options and the opportunities each offers

INTRODUCTION

This report examines the current mobile money cash-out infrastructure used in humanitarian bulk payments and offers recommendations for overcoming key constraints in the cash delivery process. All too often in the aftermath of an emergency when cash assistance is disbursed via mobile money, there are significant delays and hiccups in the receipt of that assistance by the affected population. Issues include errors transmitting information to beneficiaries, under-sourced cash-out Retail Agents, or, in extreme cases, denial of cash-out services to beneficiaries. Using Pakistan as a case study, the IRC reviewed the current state of mobile money infrastructure, systems and operations in order to understand how aid agencies, financial service providers and mobile network operators can better work together to improve how cash assistance is delivered to, and received by, affected populations.[1]

This project brought together humanitarian, technological and digital payments expertise represented by the IRC, Segovia, and Nethope, and sought to understand the constraints and limitations faced by all stakeholders involved in the mobile money payout process. The resulting analysis provides a comprehensive understanding of the structure of mobile money payments; the roles and responsibilities of each actor involved in the cash out process; and how Retail Agents on the ground manage bulk payments. The report also documents the challenges faced by each actor in the mobile money disbursement chain. Building on these findings, we present a series of recommendations to improve the planning and implementation of a cash assistance program, including ideas for technology solutions that may support distribution planning for both service providers and humanitarian organizations.

BACKGROUND

The use of cash and vouchers has grown dramatically as a tool to respond to humanitarian crises and, more broadly, as a policy instrument for social protection. Parallel to this growth of cash and voucher transfer programming, there has been a significant increase in the availability of digital payment solutions in markets where many humanitarian organizations work. These digital payment solutions facilitate the transfer of cash to beneficiaries in ways that are more transparent, efficient, and scalable. Additionally, cash transfer programs that utilize digital payments can connect aid recipients to a variety of financial services and utilities, enabling these programs to reach beyond the scope of a simple cash or voucher transfer. In order to develop a better understanding of the challenges that prevent greater uptake of digital payments, and more specifically mobile payments, in humanitarian interventions, the IRC conducted research in Pakistan that focused on the experience of mobile money service providers, Franchises and Retail Agents and the challenges they face in processing short-term bulk payments.

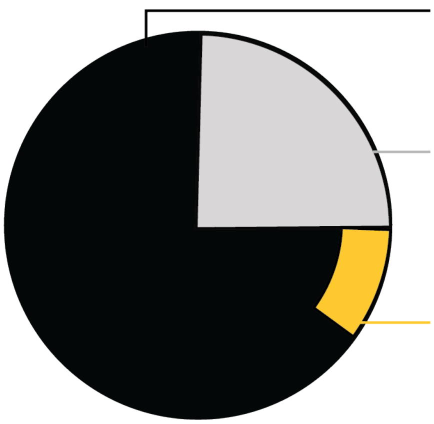
In Pakistan, one feasible digital payment option for humanitarian assistance is the use of mobile money payments, which leverages the relatively well-established and extensive mobile network

1 This report uses the following terminology to refer to the various actors involved in mobile money payments: (i) Mobile money service provider refers to the financial institution or bank, since Pakistan follows a bank-led mobile banking model; (ii) Super Agent refers to the mobile network operator or the financial institution depending on the model being used. The various models are explained in further detail on page 9 of the report; (iii) Franchise refers to the Master Agent, and (iv) Retail Agent refers to the cash-out agents on the ground.

and the proliferation of mobile phones to transfer value to beneficiaries. The branchless banking regulations (BBR) introduced in 2008 (and subsequently revised in 2011 and 2016) by the State Bank of Pakistan (SBP), set the stage for the development of branchless banking (including mobile phone banking) in Pakistan. However, despite strong mobile networks, wide mobile phone ownership, and progressive regulations issued by the SBP, mobile money is not yet widely used by the general population: although 76% of the adults surveyed are aware of mobile money providers, only 9% have used these providers for any service (Financial Inclusion Insights: Pakistan, 2017). Of those who do use mobile money, 77% of users are men, 41% live in urban areas, 70% have a primary education, 20% already have a bank account, 54% live above the poverty line and 72% are aged 35 or under (Using Mobile Money to Promote Financial Inclusion in Pakistan, 2017).

OF THOSE SURVEYED IN PAKISTAN...

Source: Financial Inclusion Insights, Pakistan



76%
are aware of mobile money providers

24%
are unaware of mobile money providers

9%
have used mobile money providers

OF THOSE WHO USE MOBILE MONEY...

Source: Using Mobile Money to Promote Financial Inclusion in Pakistan

77% are men

70% have primary education

72% are 35 or younger

54% live above the poverty line

41% live in urban areas

20% already have a bank account

This profile does not match that of beneficiaries that humanitarian agencies typically target. For example, in pilot programs conducted in Sindh, Pakistan in 2016, the IRC targeted the most vulnerable households (low per capita income, high dependency ratio, etc) and selected female members of those households to receive cash assistance. Furthermore, even though mobile phone ownership and/or access was high (73%) among IRC's target population, only a very small percentage of households had ever used mobile money (2%) or had knowledge about mobile wallet accounts (IRC Survey 2016, Sindh).

This presents a clear opportunity for humanitarian agencies: the combination of a high level of mobile phone ownership/access and limited familiarity with and utilization of mobile money in beneficiary populations provides an opening for humanitarian agencies to introduce digital payments to their cash assistance recipients. Introducing mobile technologies to this population, which may not have otherwise had the exposure or the opportunity to use mobile money, can build a foundation that humanitarian agencies can later leverage to deploy a more rapid and at-scale response when a crisis occurs. These mobile technologies also offer a safer and more transparent mechanism for humanitarian agencies to deliver cash assistance to their beneficiaries. Additionally, introducing mobile banking services to beneficiaries of humanitarian programs can facilitate their access to the longer-term benefits of financial inclusion through digital payments.

For mobile money service providers, working with humanitarian agencies in emergency response efforts can offer a significant business opportunity, allowing them to expand their services to the large beneficiary populations targeted through these programs. Though contracts with humanitarian agencies may present additional challenges, such as a requirement to expand services to remote and inhospitable locations, the sheer volume of beneficiaries for humanitarian assistance and/or social protection may make it worthwhile for the mobile money service providers to take on these challenges. For example, in 2015, 1.6 million individuals in 2,200 villages all over Pakistan were affected by floods during the monsoon season and as of July 2015, there were 1.8 million registered internally displaced people (IDP) in Pakistan. Furthermore, the Benazir Income Support Programme (BISP), the Pakistan government's flagship social safety net program, alone serves 5.4 million beneficiaries using digital payments, a small portion of whom receive those quarterly transfers by mobile money. These populations are typical beneficiaries of humanitarian cash assistance and represent a substantial, and often under-served, market for digital payment services.

This market opportunity for mobile money service providers is corroborated in the recent research published by GSMA in their 2017 Landscape Report. The IDPs interviewed by GSMA in Pakistan reported "…that the driving factor in the choice of network for mobile money was the receipt of aid," affirming a link between aid programs and network clients. Given the scale of the population reached by humanitarian assistance and social safety nets, and the increase in the use of cash relief for humanitarian assistance, mobile money service providers can substantially increase their customer base by prioritizing this segment of the population.

However, despite the availability of mobile money infrastructure and the benefits to using this approach (including, but not limited to, delivering cash more safely and transparently) for the humanitarian agencies, service providers and beneficiaries, cash transfer programs that use mobile money technology are often difficult to implement. For the IRC, challenges that prevented mobile money payments from being an efficient solution to reach beneficiaries in Pakistan with short term bulk payments included:

i. Long, drawn-out contracting processes with service providers
ii Prolonged processing periods required for service providers to activate transfers to beneficiaries
iii. Multiple beneficiary visits to cash-out points because of cash constraints faced by Retail Agents
iv. Instances of Retail Agents charging beneficiaries additional fees to cash out
v. Dormant Retail Agents who appear in the service providers' list of Retail Agents but, in practice, only provide airtime top-up services to customers

These challenges are generalizable to the experience of other humanitarian actors. The three overarching challenges highlighted by humanitarian actors during interviews included:

i. Inadequate liquidity management by cash-out Retail Agents
ii. Accuracy and timeliness of transaction reporting and reconciliation from the mobile money service provider
iii. Mobile money service providers' inconsistent monitoring of Retail Agents and response to complaints about Retail Agents

OBJECTIVE OF RESEARCH

From June to October 2017, the IRC conducted research in Pakistan in order to develop a better understanding of the challenges highlighted above and the constraints, limitations and incentives faced by mobile money service providers and the Franchises and Retail Agents on the ground. Specifically, the research had two primary objectives:

i. To identify and document how mobile money service providers, Franchises and Retail Agents manage large scale cash-outs in Pakistan, as well as the barriers and challenges they face, with a particular emphasis on liquidity management
ii. Generate ideas and solutions to tackle these barriers and constraints

The information generated through this research will enable the IRC and other humanitarian organizations to better understand how to engage with service providers and what steps to take to ensure a smooth roll out of cash assistance programs when using mobile money payments for disbursements in emergencies.

METHODOLOGY

The IRC undertook data collection efforts for this research over a three-month period from July to September 2017 and conducted semi-structured interviews with: (i) mobile money service providers; (ii) Franchises, or Master Agents; (iii) Retail Agents on the ground, and (iv) humanitarian agencies using mobile money to disburse cash assistance. The questionnaires used for these interviews can be found in Annex A of this report. After completing the field work and generating preliminary findings from the research, the IRC convened a stakeholder workshop in Islamabad to bring together key experts from Pakistan's humanitarian assistance and digital payments markets to brainstorm solutions to the challenges identified. The discussion held through this workshop formed the basis of the recommendations presented in this report.

Throughout this report, several different terms will be used interchangeably to refer to the different actors involved in the mobile money payments process. The specific terminology for these actors in Pakistan differs from the terms used and more widely accepted at a global level. Throughout this report:

- **Mobile money service provider** refers to the financial institution or bank, since Pakistan follows a bank-led mobile banking model. Only authorized financial institutions are allowed to undertake branchless banking activities and are ultimately responsible and held accountable for all mobile money transactions.
- **Super Agent** refers to the mobile network operator or the financial institution depending on the model being used. The Super Agent typically maintains and manages the network of franchises and retail agents. The various models are explained in further detail in the Service Provider section below.
- **Franchise** refers to the Master Agent, and is a layer of management between the Super Agent and the Retail Agents on the ground. The Franchise is responsible for managing the

Retail Agents, overseeing their performance and providing them with liquidity support.

- **Retail Agent** refers to the cash-out agents on the ground who carry out the cash-in/cash-out transactions with customers, including but not limited to: bill payments, money transfers, air-time top-ups, etc.

MOBILE MONEY SERVICE PROVIDER INTERVIEWS

The IRC conducted interviews with representatives of 4 different mobile money service providers that operate through different mobile money banking models used in Pakistan, as described below. This included 2 interviews with service providers that follow a one-to-one model (Telenor and Mobilink) and 1 interview with a service provider following the one-to-many model (UBL). These models will be described in further detail in the Service Provider section below. Together, these 3 service providers have 98% of the market share and had a volume base of approximately 56 million transactions during the first quarter of 2017 (Quarterly Branchless Banking Newsletter, Jan-Mar 2017, State Bank of Pakistan). The final interview was with a representative from E-Sahulat – an e-services collection and disbursement platform that leverages the existing infrastructure of mobile network operators and banks and offers services such as domestic remittances, bill payments, mobile top-up services, etc.

FRANCHISE AND RETAIL AGENT INTERVIEWS

The IRC conducted interviews with 7 different Franchises and 39 interviews with Retail Agents. The table below captures the number of Franchises and Retail Agents interviewed, organized by province and service provider. The IRC requested that each service provider share a list of Franchises and Retail Agents operating in the Sindh and and Khyber Pakhtunkwa (KP) provinces of Pakistan. The IRC selected these provinces because of IRC's prior experience with mobile money distributions in these areas and because Khyber Pakhtunkwa has experienced a significant increase in humanitarian assistance, including cash relief, due to the influx of internally displaced persons.

Table 1: Franchise and Retail Agent interviews by province and service provider

Mobile Money Service Provider	Sindh			Khyber Pakhtunkwa		
	Franchise	Retail Agent		Franchise	Retail Agent	
		Urban	Rural		Urban	Rural
Mobilink (Jazz)	0	5	2	2	3	2
Telenor (Easypaisa)	2	6	5	2	4	11
NADRA (E-Sahulat)	N/A	0	0	N/A	2	1
UBL (Omni)	0	2	2	1	2	1

HUMANITARIAN AGENCY INTERVIEWS

The IRC conducted interviews with cash relief experts in three humanitarian agencies that have recent experience using mobile money to make cash payments to beneficiaries. The primary objective of these interviews was to understand the challenges faced by the different agencies when using mobile money for payments in Pakistan and identify the common challenges faced by all agencies.

STRUCTURE OF MOBILE BANKING IN PAKISTAN

MOBILE BANKING MODELS IN PAKISTAN

The branchless banking regulations introduced by the SBP in 2008 allowed banks and microfinance institutions to leverage the infrastructure and distribution channels of mobile network operators (MNOs) to bring financial services closer to customers. Through this system, banks are able to set up a highly decentralized delivery mechanism through the use of mobile phone networks and on-the-ground Retail Agents. Using the mobile phone network to facilitate communication with customers and capitalizing on pre-existing distribution channels made up of Franchises and Retail Agents, financial services can thereby be extended beyond the reach of existing bank branches. As per the regulations, only authorized financial institutions (commercial, Islamic and microfinance banks) are allowed to undertake branchless banking activities, resulting in an exclusively bank-led model for mobile banking. This model may be implemented in one of three ways for mobile phone banking (State Bank of Pakistan, 2016):

- **One-to-one,** whereby a financial institution partners with a specific MNO to utilize that company's network for communicating with clients and conducting transactions, and leverages the same MNO's pre-existing Franchise and Retail Agent network to offer branchless banking services. In this model, the MNO manages the Franchises and Retail Agents, and maintains knowledge about coverage and number of Retail Agents. Responsibility for the actual payments remains with the financial institution.

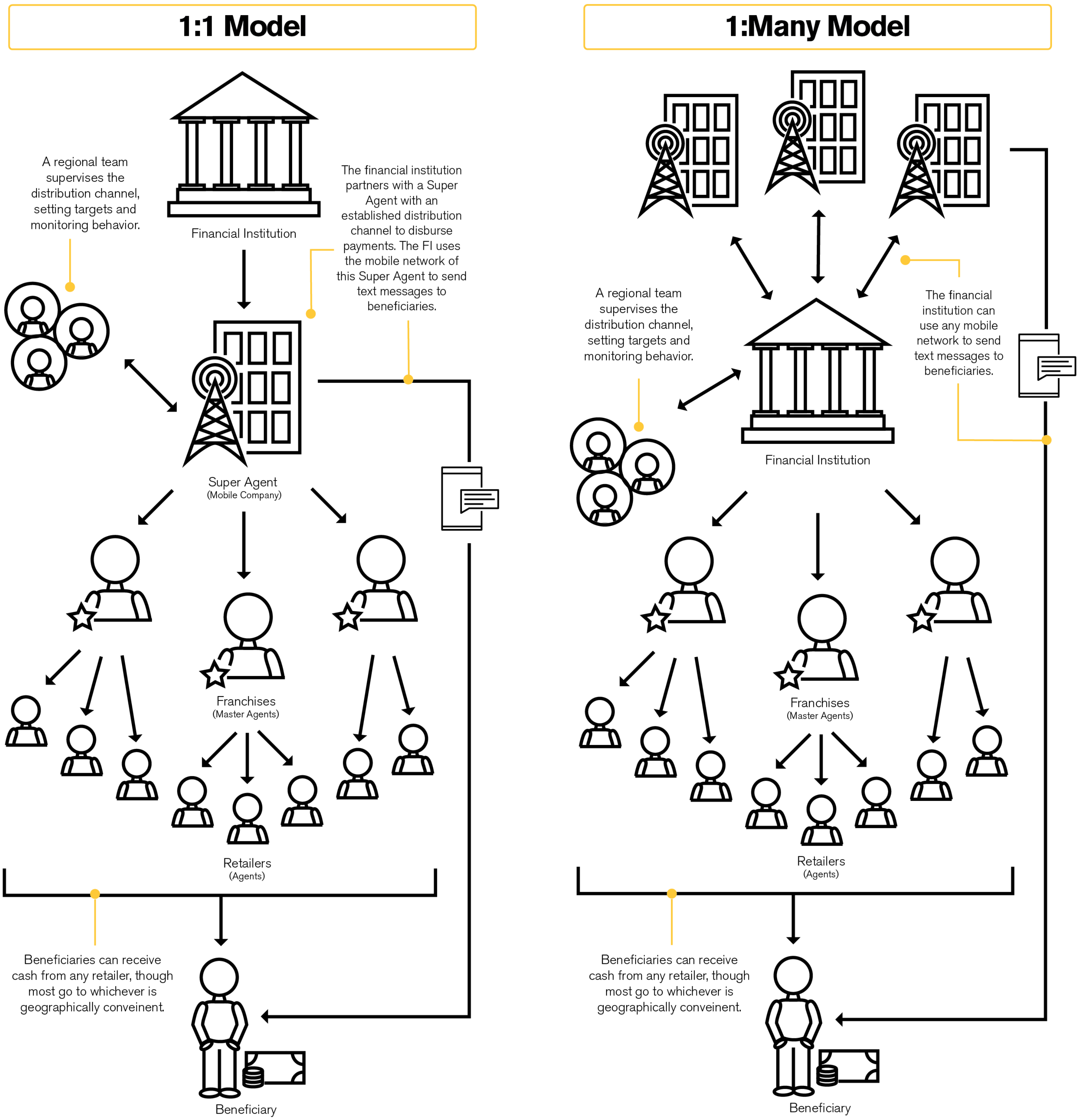
- **One-to-many,** whereby a financial institution uses the network of various MNOs to communicate with the clients and conduct transactions, but creates and uses its own Franchise and Retail Agent network to provide branchless financial services. As explained further below, the Retail Agents are not necessarily unique to one financial institution or MNO and may be shared across them.

- **Many-to-many,** whereby multiple banks and MNO/other partners work together to offer branchless banking services to customers.

The dominant implementation model in Pakistan is the first (one-to-one) with six of the nine players using this implementation model, including service providers Telenor and Mobilink interviewed for this research. The remaining three, represented through UBL in this research, offer services through the one-to-many model.[2] The final model, many-to-many, is not currently functional in Pakistan. As explored further in the recommendations, there could be tradeoffs associated with the different mobile banking models that may be important from the perspective of the humanitarian agency when determining which financial institution to partner with for cash disbursements.

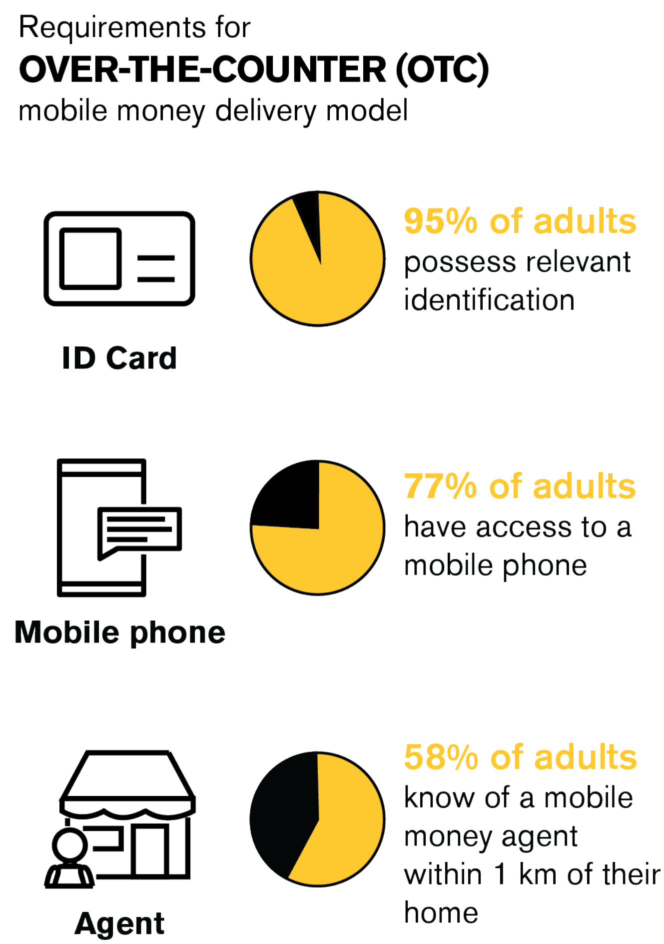
2 Additional details on the service providers and their implementation models are provided in Annex B.

Figure 1: Mobile Banking Models in Pakistan



OVER THE COUNTER AND E-WALLET CASH OUT SERVICES

In Pakistan, mobile money service providers offer two delivery models: over-the-counter (OTC) and mobile wallets (Using Mobile Money to Promote Financial Inclusion in Pakistan, 2017). OTC transactions do not require the customer to use his/her own account when sending or receiving money; instead, the customer conducts the transaction with the Retail Agent in cash and relies on the Retail Agent to conduct the electronic transaction on the customer's behalf (Chen, 2013). Of the current mobile money users in Pakistan, nearly all opt for OTC payments (Financial Insights Report, 2017) primarily because these transaction are simple: they require only an identity document (computerized national identity card) and access to a mobile money agent for sending and receiving cash. In the case of mobile money bulk payments, an OTC transaction may also require a mobile phone number in order to alert beneficiaries of the cash out via text message and provide details of how to cash out. None of these requirements represent a significant barrier to the majority of Pakistanis:[3] 95% of adults[4] possess the necessary identification documents and 77% of adults have mobile phone access.[5] Moreover, as of March 2017, there are approximately 370,000 (unadjusted for shared agents) branchless banking agents in Pakistan (Quarterly Branchless Banking Newsletter, Jan-Mar 2017, State Bank of Pakistan), and 58% of adults report that they know of a mobile money agent within 1km of their home (Financial Inclusion Insights, 2017). Mobile wallets, on the other hand, require the user to own a mobile device/SIM card and open a mobile account. Furthermore, mobile wallets require a higher degree of financial and digital literacy than OTC delivery. Additionally, both access to a mobile phone (85% for men vs. 68% for women) and SIM card ownership (75% for men vs. 27% for women) are skewed in favor of men relative to women in Pakistan.



Even though mobile wallets can facilitate greater financial inclusion, humanitarian agencies, too, may favor over-the-counter (OTC) mobile money payments as they are easier and faster to administer and are the most feasible option for one-time payments. OTC mobile money payments also have several advantages relative to typical humanitarian "cash in envelopes" cash disbursements: (i) beneficiaries can visit the agents at their convenience within a certain pre-defined period of time (usually a standard of

3 InterMedia, 2017 Financial Inclusion Insights Report
4 Individuals over the age of 15
5 Different sources report slightly different numbers, for example, a 2015 report by Karandaaz finds that 59% of all adults own mobile phones, while 79% have access to mobile phones. Split by gender, Karandaaz reports that 80% of men own mobile phones, while 89% have access and 38% of women own mobile phones, while 70% have access. (Using Mobile Money to Promote Financial Inclusion in Pakistan. Karandaaz, 2015)

15 days), (ii) the payment mechanism capitalizes on the existing infrastructure of the private sector rather than creating a parallel structure to disburse cash, (iii) the disbursement method is safer and more transparent than cash in envelopes, and (iv) the payment method introduces beneficiaries to digital payments—a potential step on the path toward financial inclusion. One trade-off to this preference for OTC mobile money payments is that it does not do as much as mobile wallets to promote financial inclusion. Although OTC payments may introduce beneficiaries to digital payments, this exposure is fairly limited as it is still the Retail Agent who uses his/her account to conduct the transaction on behalf of the customer. For the customer, the transaction is still a cash based transaction (sending or receiving cash via the agent). Mobile wallets, on the other hand, enable customers to carry out transactions using their own account and also allow for electronic storage of value, record of financial history and greater privacy for the user (Mas, 2013). In this way, mobile wallets have a clearer pathway towards financial inclusion than OTC transactions.

DISTRIBUTION CHANNEL

— *Super Agents & Franchises*

As laid out in the branchless banking regulations, the overall responsibility for all branchless banking activities, including mobile money payments, lies with the financial institution. The financial institution is also responsible for setting targets (number of new Retail Agents recruited, number of transactions per Retail Agent, etc) and the commission structure for the Franchises and the Retail Agents. The responsibility for liquidity planning and management lies with the Franchises that oversee Retail Agents. In the one-to-many model, the financial institution serves as the Super Agent and has its own network of Retail Agents set up, as is the case with UBL, but uses the network of various MNOs to communicate with the beneficiaries and conduct transactions. However, when the financial institution does not have its own agent network, it often partners with a MNO as a Super Agent in order to capitalize on the Super Agent's pre-existing Franchise and Retail Agent network. This is the one-to-one model, wherein the Super Agent manages the Franchises and Retail Agents, including communication with the Retail Agents, and maintains knowledge about coverage and number of Retail Agents. Responsibility for the actual payments still remains with the financial institution.

The distribution channel maintained by a MNO typically builds on the pre-existing network of Franchises and Retail Agents that provide GSM airtime sales, SIM registration, etc, for mobile phone usage (Helix Institute of Digital Finance, 2016). Franchises are one layer of management found between the Super Agent and the Retail Agents on the ground and are meant to manage and provide liquidity support to the Retail Agents, in addition to ensuring business growth. These Franchises are unique to each service provider and have prior experience working with the Super Agent (for example, in the distribution channel of MNOs, these Franchises may have previously provided air time top-up services, bill payments for post-paid accounts, or SIM card purchase and registration). The Franchises are primarily selected by the Super Agent based on the strength of their financial position (for example, Franchises may be required to be registered businesses with a certain minimum amount of Pakistan rupees in capital). Other criteria may include reputation, business location, loyalty, customer base, etc.

Once selected, the Franchises are primarily responsible for ensuring that their Retail Agent network has sufficient access to cash or e-float as needed, and also monitoring their Retail Agent network's electronic value balance. Each Franchise manages anywhere from 25-250 Retail Agents (with an average of about 120 Retail Agents), and primarily communicates with the Retail Agents via phone calls. The frequency of contact between Retail Agents and Franchises depend on business needs.

— *Retail Agents*

Whereas the Franchises are unique to each Super Agent, many of the Retail Agents serve as Retail Agents for more than one mobile money service provider. Ninety percent of the Retail Agents interviewed by the IRC (34 out of 39) had a contract with more than one mobile money service provider. Typically, Retail Agents already have a pre-existing business and mobile money payments are just one part of their portfolio. Other digital payment services offered by these Retail Agents include: (i) utility bill payments; (ii) top-up services for mobile phones; (iii) domestic remittances; (iv) depositing funds into bank accounts, and (v) mobile wallet account opening.

All the Retail Agents interviewed were male and upwards of 70% of them were located in urban areas. Retail Agents report conducting anywhere from 5-30 transactions a day, with a vast majority reporting between 20-25 transactions daily. The average value for these transactions also varies greatly, ranging from Rs. 1000 to Rs. 50,000. The Retail Agents are provided with cash in exchange for e-float by the regional team (see below), but report using their own cash (whether by borrowing from family and friends or withdrawing from their personal bank account) for the initial cash payments to clients and to meet liquidity demands.

Photo: Meredith Hutchinson/IRC

Regional Team

In addition to the management structure, the Super Agent or Financial Institution also maintains a regional team, which is managed directly by the Super Agent, and which is responsible for communicating with the Retail Agents, monitoring their activities, and serving as a go-between for transferring cash from the Franchise to the Retail Agents in exchange for e-float in case of liquidity constraints. Whereas the Franchises mostly communicate with the Retail Agents over the phone, the regional team members pay frequent visits to the Retail Agents. It is this regional team that transports money from the Franchise to the Retail Agent when the Retail Agent needs to exchange e-float for cash and otherwise monitors the performance and activities of the Retail Agent. The frequency of meetings varies depending on business needs.

THE MOBILE MONEY BULK PAYMENTS PROCESS

There are two main stages in the mobile money bulk payment process. The first stage captures the pre-requisite actions led by the humanitarian agency that need to be in place for the disbursement to happen, for example, contract negotiation, signing of agreement and bank account opening. The second stage captures the disbursement process itself managed by the bank or Super Agent.

The time it takes to complete the first stage varies and depends on the humanitarian actor's procurement processes, length of the negotiations, contract agreement, and account opening processes. Additional delays may result from any necessary customization of the product. This process takes anywhere from 1-2 months. The time it takes to complete the second stage largely depends on the terms and conditions of the contract/agreement and the liquidity of Retail Agents on the ground. Financial institutions are able to transfer funds to beneficiaries within 24 hours, but sometimes specific processing times built into the agreement may prolong this transfer window.

The typical steps involved in each stage are outlined below.

STAGE ONE

1. Issuance of request for proposals (RFP)
A humanitarian agency issues a RFP containing basic information such as (i) objectives of the project; (ii) the required services, (iii) details on the required outcomes, (iv) the selection criteria, and (v) contractual requirements.

2. Selection of Mobile Money Service Provider
The humanitarian agency evaluates the proposals and based on their requirements selects the most competitive service provider.

3. Contract Negotiation
This step involves discussing and finalizing the details of the scope of work, the proposed payment disbursement mechanism, any necessary customization and the service charges.

4. Contract Signing

The service provider and the humanitarian agency sign a legal document - a contract agreement - as per the terms and conditions described in the RFP and finalized during the contract negotiation. Any significant changes to approved contract templates, or if an alternate contract format is being used, requires approval by the relevant authority in the management structure.

5. Finalization of Technical/Operational Specifications

Agreement signing is followed by finalization of technical and operational specifications. Once these are finalized, relevant modules, processes and applications are developed and finalized prior to project implementation.

6. Account Opening

The humanitarian agency is required to open a bank account with the financial institution/ associated bank for that specific service provider in order for bulk payments to be processed. The humanitarian agency has to transfer funds to its bank account with the financial institution in order for the funds to then be made available for withdrawal by beneficiaries as per the data and payment instructions provided by the humanitarian agency. Account opening requires an extensive amount of paperwork and this step may take a significant amount of time.

STAGE TWO

1. Transfer of Funds to Bank Account

The humanitarian agency transfers funds (along with the agreed upon service charges) to its account with the financial institution prior to the disbursement as per the terms and conditions in the Agreement.

2. Beneficiary Data Transfer and Payment Instructions

The humanitarian agency bears the responsibility for collecting and transferring beneficiary specific data (name, CNIC, mobile phone number and transfer amount) in the agreed format to the financial institution. This data enables the cash disbursement and facilitates the payment reconciliation and complaint management process.

3. System Level Access for Super Agent, Franchises and Retail Agents

The financial institution provides system access to the Super Agent, Franchises and Retail Agents so they can access cash-out information for a given beneficiary. This information is not proactively communicated to the Franchise or the Retail Agents, it is merely updated in the financial institution's core banking system and made available to the Franchise and Retail Agents on an individual basis. The Franchises and Retail Agents maintain individual accounts with the financial institution. There is no transfer of funds upfront, instead Retail Agents are reimbursed after they disburse cash to a beneficiary. The reimbursement happens through a fund transfer into their account with the financial institution. For OTC payments, beneficiary accounts are not required and the remittance is generated against the CNIC number of the registered beneficiary.

Data & Funds

The humanitarian agency transfers funds & shares information about the beneficiaries in a pre-specified format per guidelines from the financial institution.

Information Access

The financial institution uploads the data and transfer amounts to their core system.

The super agents, franchises, and retailers can access this information as per their need and level of authorization.

Notification

The super agent notifies the beneficiary via text message.

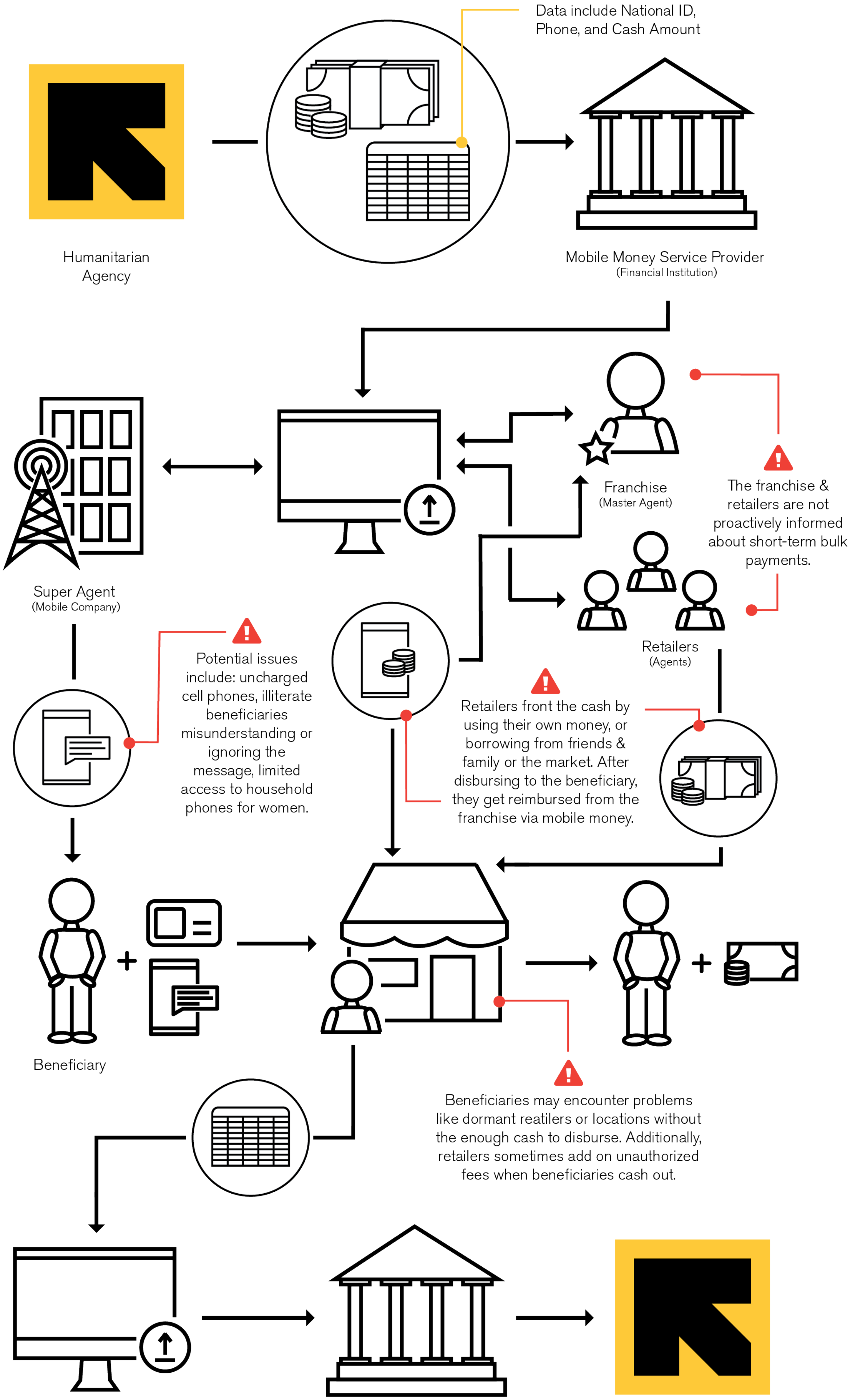
Disbursement

The beneficiary takes the text & their ID to the retailer who will dispense the alloted cash amount.

Reconciliation

With each transaction between retailer and beneficiary, the core system is updated accordingly. Then the financial institution reconciles the data and shares with the humanitarian agency.

Figure 2: Pain Points in Mobile Money Bulk Payments



4. Over the Counter (OTC) Payment Mechanism

- The financial institution provides instructions to the MNO to generate and send a SMS alert to the beneficiaries' mobile numbers provided by the humanitarian agency notifying them of a funds transfer.
- The beneficiaries visit the financial institution's authorized Retail Agent in order to cash out. Beneficiaries can withdraw funds by presenting their original CNIC to the service provider's agent.
- The Retail Agent verifies the information (identity and transfer amount) in the financial institution's system and upon successful verification, releases funds to the beneficiary against their CNIC. The payment information is communicated back to the financial institution digitally through the bank's system.
- The Retail Agent typically uses his own funds to make the payment to the beneficiary and is reimbursed by the financial institution (i.e. by providing cash out services to the beneficiary, the Retail Agent accumulates e-float (digital credit that can be used to make payments, transfer money or be exchanged for cash). He then exchanges this e-float for cash from the Franchise or through a transfer into his bank account with the financial institution. If necessary for liquidity management, the cash is typically transported to the Retail Agent through a member of the regional team.


Photo: IRC Pakistan

KEY FINDINGS

Based on the data collected during interviews with the mobile money service providers, Franchises, Retail Agents, and humanitarian agencies, several key findings emerged. These key findings are critical for enabling us to better understand the structure of mobile money payments, the roles and responsibilities of the various actors, how Retail Agents manage bulk payments, and the challenges they face. These findings enable us to develop recommendations about how best to address the constraints faced during one-off or short-term recurring payments in response to humanitarian crises.

KEY FINDING #1

Mobile money service providers have significant experience processing bulk payments for humanitarian and/or development organizations and, despite challenges, consider this a part of their core business

At the corporate level, mobile money service providers have several years of experience with bulk payments and have previously worked with national or international humanitarian and/or development organizations and government entities to disburse funds to beneficiaries in the aftermath of a crisis or as a part of a social protection program. They perceive these disbursements (payments to beneficiaries of humanitarian organizations) as a part of their core business and not as corporate social responsibility activities.

The mobile money service providers highlighted several challenges in working with humanitarian agencies, which included:

- Unique operational requirements, such as shorter decision-making and implementation timelines than most regular bulk payment projects.
- Lack of experience and knowledge of digital payments on the part of humanitarian agencies, including little understanding about mobile money products, State Bank regulations, etc. This has resulted in long delays in finalizing technical requirements and service level agreements.
- Environmental or contextual challenges having to do with the locations where humanitarian relief is being delivered, such as in remote locations, in areas where mobile network connectivity is poor or has been damaged and/or where an extensive agent network does not exist, and in more inhospitable areas.
- Specific to Pakistan, opening bank accounts (and the accompanying paperwork) is a significant challenge and is very time consuming for the humanitarian agencies.

However, most service providers mentioned that many of these challenges can be overcome through better preparedness planning, capacity building, closer communication and more stakeholder engagement.

Specifically with the environmental and contextual challenges, service providers reported having previous experience overcoming situations in which the mobile network in a given area is down. In these circumstances, they have successfully used Cell on Wheels (COW) (a normal cell site of a mobile operator that is placed on a vehicle so that it can be moved to places where the network is down) or have temporarily mobilized Retail Agents to provide services at those sites so that beneficiaries can cash out. Although these solutions are temporary and expensive, they do enable cash disbursements to take place. Furthermore, in certain circumstances, service providers may also be able to provide disbursement services through satellite connectivity. This is also an expensive and temporary arrangement.

KEY FINDING #2

Issues seen in Retail Agents' beneficiary interactions and liquidity management stem in part from a lack of training and support for Retail Agents

Service providers report having customized trainings for Franchises and Retail Agents on new products, implementation of new regulations, product knowledge, customer service, complaint response, etc. However, interviews with Franchises and Retail Agents suggest that only Franchises receive dedicated training. Retail Agents only receive the bare minimum training on how to handle mobile accounts. This lack of training can manifest itself in different ways in the Retail Agent's interaction with the customer. For example, the Retail Agent may charge the customer an additional cash out fee, which the service providers consistently report as being a reason for blacklisting a Retail Agent.

Similarly, mobile money service providers report that the responsibility of providing this liquidity planning and management support lies with the Franchises. However, Retail Agents do not consistently report receiving support or training on how to manage their liquidity. Though Franchises report aiding Retail Agents to have reliable sources of funds for cash out, Retail Agents reported that their primary sources of funds and tools for liquidity management were all personal, including: (i) withdrawing money from own bank account, (ii) borrowing from friends and family, and (iii) borrowing from the market. Moreover, Retail Agents report that they are not informed about short-term bulk payments in advance, but that advance notice could enable them to avoid issues with liquidity.

KEY FINDING #3

Shared and dormant Retail Agents are a problem and affect humanitarian planning for cash out

Although official figures suggest that there are approximately 370,000 branchless banking Retail Agents in Pakistan (Quarterly Branchless Banking Newsletter, Jan-Mar 2017, State Bank of Pakistan), this number is vastly overstated. It effectively double or triple counts shared Retail Agents—Retail Agents who provide services for more than one Super Agent—and does not capture the prevalence of dormant Retail Agents—those that remain on the mobile money service provider lists, but in practice have either closed their business or only provide mobile top-up services. In IRC's experience conducting interviews with Retail Agents, the vast majority (90%) of Retail Agents provided cash out services for more than one service provider. Furthermore, interviews with Franchises suggested that targets of the number of Retail Agents established by service providers might perpetuate the problem of dormant Retail Agents. The target-setting incentivizes regional teams to keep Retail Agents enrolled in order to meet monthly/quarterly targets even though the Retail Agents might not have the capacity to maintain the business.

The shared and dormant Retail Agent phenomena impact how humanitarian agencies plan for bulk disbursements. The dormant Retail Agent problem prevents the agency from having an accurate understanding of the number of Retail Agents on the ground and the capacity of the mobile money service provider within a certain geographical area to handle a short term bulk payment. The officially stated number (higher than in practice) may lead the agency to believe that the mobile money service provider has sufficient capacity when, in fact, it does not. Additionally, if the humanitarian agency sees that one mobile money service provider does not have sufficient capacity to provide cash out services in a given geographical area, it may seem logical to address this problem by engaging with an additional (or multiple other) mobile money service provider. However, this solution does not consider the problem of the shared Retail Agents. If mobile money service providers have the same Retail Agent base, then engaging multiple service providers may not resolve the capacity issue.

KEY FINDING #4

Humanitarian bulk payments significantly increase transaction volume and size for Retail Agents and would require advance planning to manage

In order to develop an understanding of whether a certain mobile money service provider is able to handle a cash disbursements in a given location, the humanitarian agency would need two different types of information about the Retail Agents on the ground: (i) the number of Retail Agents for that mobile money service provider in that geographical area, and (ii) the average number of transactions that each Retail Agent handles in a typical day. The combination of this information would enable the humanitarian agency to gauge whether the service provider can provide cash out services in that area without any additional support or preparation. Whereas information about the presence of Retail Agents on the ground is readily available, even if not entirely accurate as noted above, information about the average number of transaction is not well tracked or shared.

Interviews with Retail Agents suggest that they typically handle between 5-30 transactions a day, with a vast majority reporting between 20-25 transactions daily. The average value for these transactions also varies greatly, starting at Rs. 1000. For bulk payments, these numbers may increase to between 50-100 transactions per day with an average value of Rs. 10,000 – a significant increase from the average daily volume and value. It is no surprise then that short term bulk payments result in a significant increase in the daily volume of business that these Retail Agents handle and would require tailored training, planning and/or financial support. However, the Retail Agents do not report any preparedness or planning activities related to bulk payments, citing limited support from the Franchises despite the Franchises' responsibility for liquidity planning and management. This weak planning and support may lead to liquidity constraints and security challenges that accompany high volumes of cash. These challenges may ultimately deter agents from participating in bulk payment disbursements.

KEY FINDING #5

Per-transaction commission fees for Retail Agents and Franchises are not aligned with the increased risks involved in maintaining liquidity for cash-out services during bulk distributions

According to their contracts with financial institutions, Retail Agents and Franchises cannot refuse cash out services to people receiving assistance through bulk payments programs. However, in practice, if Franchises or Retail Agents run out of cash, they simply refer clients to other Retail Agents or tell them to come back the following day. For large-scale payments, this can result in long delays for receiving assistance, in some cases requiring clients to return several times in order to cash-out, all at a high cost to the aid recipient. This is consistent with the experience of beneficiaries served by the humanitarian agencies.

The system in place to attempt to prevent these kinds of incidents is the agents' commission structure. Retail Agents and Franchises are compensated based on commissions associated with the volume of transactions they handled. The commission structure is set by the mobile money service provider, in accordance with the guidelines issued by the State Bank of Pakistan, and in theory, this commission could serve as an incentive for Retail Agents and Franchises to take on the added risk (particularly in insecure areas) of maintaining greater liquidity during bulk distributions. In practice, the lack of advance planning for payment programs means this incentive does not operate as intended. Additionally, beyond the standard commission structure, service providers report that they may sometimes offer Retail Agents and Franchises higher commission rates for participating in bulk payments, but Retail Agents report not receiving any additional incentives. In fact, the commission rates may even be lower for bulk payments. Overall, the per-transaction commission structure for Retail Agents and Franchises is not well aligned with the additional risks Retail Agents must take on to maintain increased liquidity during times of bulk cash-outs. Altering the commission structure—such as added incentives for bulk payments or increased incentives for faster cash-outs, etc., could be one potential way to incentivize Franchises and Retail Agents to participate and more actively manage liquidity constraints.

KEY FINDING #6

There are different options for fee structures for mobile money payments, and these appear to align with humanitarian agencies' different priorities (speed of delivery vs. cost) for a given cash assistance distribution

Mobile money service providers report having a mix of standing and project-specific agreements with the different humanitarian organizations and offer three different fee structures for the service charges associated with bulk payments: (i) direct fee based model, i.e. there is a service charge per transfer made; (ii) float based model, i.e. the humanitarian agency transfers funds to the financial institution a pre-defined period of time in advance of the payments and the financial institution earns interest on those funds instead of charging the humanitarian agency a fee per transfer; and (iii) a hybrid model including both a fee and float. In the direct fee-based model, transaction fees are charged per transfer made and may be higher and are likely to result in a faster processing time, since they don't require transferring the funds well in advance. Agreements with humanitarian agencies may include a by-default float component alongside the fee per transfer.

Interviews with humanitarian agencies delivering cash assistance through mobile money in Pakistan indicate that they don't have knowledge of the various fee structures. Greater familiarity with the different available options would enable humanitarian agencies to weigh the cost implications against other priorities, such as increasing the speed of delivery, and negotiate a fee structure accordingly.

KEY RECOMMENDATIONS

Based on these findings, several key areas of the mobile money delivery operation need to improve in order to ensure these services remain a viable option for large-scale humanitarian cash disbursements. These improvements target different actors involved at different points in the mobile money disbursement process with the goal of facilitating a safer and speedier cash-out process for beneficiaries receiving mobile money transfers. Broadly speaking, these improvements include:

Better equipping the Retail Agent network to handle large-scale cash-outs by providing additional training and different kinds of liquidity planning and management support to Retail Agents to alleviate liquidity constraints on the ground.

Enhancing communication and information-sharing networks, including building new links between humanitarian agencies and Super Agents and promoting proactive communication of upcoming bulk payments through the distribution channel.

Employing more strategic accountability tools and payment structures, such as contract stipulations, commission structures and incentives, which can be altered to better facilitate the cash-out process.

The following recommendations, individually or taken together, could help address the challenges related to the key performance areas identified in this report.

KEY RECOMMENDATION #1

Mobile money service providers, either directly or through Super Agents, should ensure Retail Agents are supported with the necessary training and tools/products to manage liquidity

This research clearly highlights the need for consistent training for Retail Agents on liquidity planning and management, and there is a clear role for the mobile money service provider (either directly or through the Super Agent) in providing this training. Our research suggests, however, that this need for training is not just limited to liquidity planning and management and could be extended to include other areas such as: customer engagement, rules & regulations of cashing out (for example, charging extra fees to beneficiaries is grounds for being blacklisted by the mobile money service provider), and how to deal with technical errors to avoid issues with erroneous reconciliation.

In certain circumstances, it is possible that the liquidity constraint is related to a lack of funds or access to funds through the Retail Agents' traditional sources to cover the cash out needs up front. In such situations, more innovative products or services could be introduced to enable retail agents to better manage their liquidity constraints. One such solution may be a short-term loan product that Retail Agents can utilize to provide cash out services for bulk payments, potentially with the backing of humanitarian agencies requesting the bulk payment services.

KEY RECOMMENDATION #2

Humanitarian agencies should foster relationships directly with other actors involved in the mobile money cash-out process and proactively communicate with them when planning for bulk distributions

Communicating with the mobile money service provider alone may not be the most effective way of gaining the information necessary for humanitarian agencies to address issues relating to the Super Agent, the Franchise or the Retail Agent. As discussed in the section on 'The Structure of Mobile Banking in Pakistan' and Key Finding #7, there are multiple actors involved in the distribution channel and each actor has designated roles and responsibilities.

When planning a cash-out in a specific geographical area and prior to signing an agreement, humanitarian actors should build a relationship with the Super Agent, or directly with the Franchise, for planning and scheduling distributions. These actors in the mobile money distribution chain likely have the most up to date information about the Retail Agents, including how many are active, their geographic coverage, and the average number and value of transactions they conduct. This will allow the humanitarian agency to assess whether the distribution channel of the mobile money service provider can handle the planned cash-out in that area, and what measures can be taken if that service provider's network does not have sufficient capacity.

Additionally, planning with the Super Agent or Franchise will assist the humanitarian agency to understand what payment schedule (or how staggering payments) can be used to mitigate liquidity challenges, if needed. Any decisions on the payment schedule can then be more directly coordinated and communicated between the humanitarian agency and the Super Agent or Franchise.

KEY RECOMMENDATION #3

Mobile money service providers should provide advance notification of upcoming bulk payments to the Super Agent with the requirement that the Super Agent notify the Franchises and Retail Agents a predefined period of time in advance of the actual disbursement

From the research, we know that there is currently no proactive communication to the Retail Agent network alerting them to a planned short-term bulk disbursement in a given area, despite consistent feedback from Retail Agents that this would allow them to better manage liquidity constraints. A chain of communication starting at the level of the Mobile Money Service Provider reaching to the Retail Agents can address this current shortcoming. Super Agents should communicate information about short-term bulk payments through their distribution channel and mobilize their regional teams well in advance so that Franchises and Retail Agents can plan appropriately.

Potential Technology Solution: Liquidity Alert Tool

Technology solutions could be one channel that enable a better and earlier spread of information to Franchises and Retail Agents. One such solution proposed by Segovia Technology is a bulk SMS alert tool that can be used in combination with liquidity demand forecasts to alert Franchises and Retail Agents about upcoming payments.

Using data about upcoming payments, including beneficiary location, payment amount and payment date, a technology platform like Segovia's could map out areas that will receive a certain level of bulk payments at a given date and, consequently, will see heightened liquidity demand for mobile money Retail Agents. These forecasts could be used in combination with simple and widely available technology to push SMS alerts to Retail Agents, informing them of upcoming liquidity demands in their area.

In addition to that data, the technology platform could ingest MSISDNs and locations of Retail Agents, and overlay these with the liquidity demand forecasts. When a disbursement in an area is planned, the relevant Retail Agents would be informed of the date and size of the disbursement using text messages via a bulk SMS service.

The research findings suggest both that this kind of a tool would be useful and is technically viable. Its utility is suggested by the fact that Retail Agents often say that they could manage cash-outs for bulk payments if they just knew about impending large-scale digital payments in advance. The report suggests that the tool is technically viable, as MNOs declared that they have available the MSISDNs and locations of agents. Furthermore, the report confirms that most Retail Agents are stationary, as they gain liquidity out of their existing shopfront businesses, meaning that at least for many applications no live-data feed of Retail Agent location would be necessary.

KEY RECOMMENDATION #4

Humanitarian agencies should strengthen efforts to educate the beneficiary population on financial literacy, financial products and expectations for interacting with financial service providers

This research suggests that there is a clear need for humanitarian agencies to play a bigger role in educating beneficiaries about both the availability of services and their rights when interacting with financial service providers. This can help to hold the service providers and their representatives accountable for appropriate behavior and completion of payments. Often, the humanitarian agencies' involvement in the beneficiaries' cash-out experience is limited to informing them that they should expect to receive a text message with information about their cash assistance, and follow-up monitoring to ensure the assistance was received. There are two additional roles that humanitarian agencies can play in educating beneficiaries:

- Conduct 'Know Your Right' and basic financial literacy trainings so beneficiaries know how to interact with digital payment solutions and are able to detect fraud or unacceptable behavior by the Retail Agent. Humanitarian agencies should also reinforce beneficiaries' understanding about how they can register complaints through the complaint response mechanism offered by the service provider.

- Educate beneficiaries on mobile wallets and, where feasible, advocate for the use of mobile wallets in place of OTC transactions. This has the potential to also ease challenges with liquidity in contexts where beneficiaries don't immediately cash out their transfer amount or where they choose to cash out in installments rather than in one go.

KEY RECOMMENDATION #5

Humanitarian agencies should encourage mobile money service providers to alter commission structures and utilize incentives in ways that promote participation in bulk payments by Retail Agents and proactive liquidity management support by Franchises

Although mobile money service providers report that they sometimes provide Franchises and Retail Agents with additional incentives to participate in short-term bulk payments beyond the existing commission structure, Retail Agents largely do not corroborate this information. Use of these types of incentives, in addition to the regular commission structure, could better balance the cost of participating in a short-term bulk payment for Retail Agents. The prospect of additional commission income could incentivize Retail Agents to increase the amount of cash on hand in order to participate in the bulk payment. This additional incentive could be provided by the mobile money service provider or by the humanitarian agency, depending on their agreement.

Additionally, the disbursement of commissions by the Super Agent should be re-structured to reward timely cash-outs, as opposed to being paid on a per-transaction basis. Rewarding timely cash-outs will incentivize Franchises to proactively provide liquidity management support to Retail Agents. The current commission structure does not effectively hold Franchises accountable for liquidity management, despite it being their primary responsibility. Since one Franchise manages all Retail Agents in a given geographical area, the Franchise will receive their commission irrespective of which Retail Agent provides the cash-out service and at what time. The current commission structure merely requires a cash out at any time by any Retail Agent managed by the Franchise in order for the Franchise to get paid. This structure means that there is no particular incentive or accountability mechanism ensuring that the Franchise provide liquidity support to a given Retail Agent or facilitate timely cash-outs. Adapting the current commission structures can help enforce a timely cash-out process that aligns with humanitarian agencies' needs.

KEY RECOMMENDATION #6

Humanitarian agencies should leverage their service agreements with mobile money providers to ensure adequate delivery of cash-out services

Humanitarian agencies should hold mobile money service providers accountable for the adequate delivery of cash-out services, a responsibility acknowledged by the mobile money service providers. Humanitarian agencies can do so by communicating expectations and including provisions in their contracts/agreements with mobile money service providers that require adherence to certain performance standards. This could include provisions that reflect humanitarian agencies' expectations for mobile money service providers, including stipulations around response times for addressing complaints or reissuing text messages to beneficiaries, frequency of reconciliation reports, steps that the service provider will take if fraudulent behavior is reported, etc. Once communicated by the humanitarian agency and integrated into the contract, the mobile money service providers can then communicate these to the Super Agent and the various actors in the distribution channel.

Additionally, the contract/agreement between a humanitarian agency and the mobile money service provider can be restructured altogether to link payments to the completion of deliverables as opposed to a fee for service. This would enable humanitarian agencies to leverage their service agreements to enforce adequate delivery of cash-out service. For example, the contract could stipulate that service providers will receive the service charge only after the transaction has been completed and the beneficiary has received the payment. To encourage the completion of cash-outs within a certain time period, the contracts could include higher service charges for more immediate cash outs, such as 48 hours, and reduced payments for subsequent cash-outs that fall outside of this window. Another option could to be build incentive payments into the contract which are released at the end of each pay period in order to promote timely cash outs.

KEY RECOMMENDATION #7

Humanitarian organizations should proactively seek opportunities to build their capacity on digital payment solutions and their understanding of the different mobile money banking model options and the opportunities each offers

Mobile money service providers consider a lack of capacity and limited technical know-how on the part of the humanitarian agencies as one challenge to working with them, as this constrains discussions of the scope of work and potential products. This finding is corroborated by discussions with humanitarian actors which showed that humanitarian agencies often have a limited knowledge of fee structure options, as well as the opportunities offered with the different mobile money banking models.

Given this gap in knowledge, it is important that humanitarian organizations strengthen their knowledge of digital payment solutions and mobile money banking models to enable them to identify and implement the best possible solution and process for their beneficiary population and to leverage advantages that may be offered by one or the other banking model.

This may include training to:

- Increase humanitarian agencies' knowledge base and assessment of mobile money products in the market, so they are able to articulate their needs and requirements and better determine which product is most appropriate.

- Improve basic understanding of digital payments-related technology (for example, real-time reconciliation systems). An alternative would be for the humanitarian agencies to engage outside technology experts to hold discussions on their behalf.

- Increase humanitarian agencies' understanding of mobile money banking models to allow them to assess whether the advantages offered through one model or the other may be beneficial or necessary for their programming. For example, the one-to-many branchless banking model may offer the following advantages:

    - Fewer actors in the distribution network resulting in more streamlined communication
    - One primary entity (financial institution) for contract negotiations
    - Flexibility of sending text messages and making beneficiary information available to retailers through the network of multiple MNOs


Photo: Selena Marr/IRC

Table 2: Key Recommendations and Relevant Audience

	RECOMMENDATIONS	RELEVANT AUDIENCE	
		Mobile Money Service Provider	Humanitarian Organization
1	Mobile money service providers, either directly or through Super Agents, should ensure Retail Agents are supported with the necessary training and tools/products to manage liquidity	✔	
2	Humanitarian agencies should foster relationships directly with other actors involved in the mobile money cash-out process and proactively communicate with them when planning for bulk distributions		✔
3	Mobile money service providers should provide advance notification of upcoming bulk payments to the Super Agent with the requirement that the Super Agent notify the Franchises and Retail Agents a predefined period of time in advance of the actual disbursement	✔	
4	Humanitarian agencies should strengthen efforts to educate the beneficiary population on financial literacy, financial products and expectations for interacting with financial service providers		✔
5	Humanitarian agencies should encourage mobile money service providers to alter commission structures and utilize incentives in ways that promote participation in bulk payments by Retail Agents and proactive liquidity management support by Franchises	✔	✔
6	Humanitarian agencies should leverage their service agreements with mobile money providers to ensure adequate delivery of cash-out services		✔
7	Humanitarian organizations should proactively seek opportunities to build their capacity on digital payment solutions and their understanding of the different mobile money banking model options and the opportunities each offers		✔

ANNEX A: QUESTIONNAIRES

SERVICE PROVIDERS

— *Background*

1. How long has your company offered mobile money bulk payment products in Pakistan?
2. Are you familiar with development or humanitarian assistance? How many development or humanitarian sector customers have you worked with in the last 2 years?
3. Do you currently do business with national or international NGOs or government departments that are using mobile money for emergency response/humanitarian assistance?
4. Is this typically a part of a corporate social responsibility initiative or part of the core business?
5. Do you have standing agreements with these organizations or is it typically on a project by project basis? What is the nature of these agreements?
6. Reflecting on your experiences working with humanitarian organizations, how do humanitarian organizations differ from other mobile money bulk payment clients?
7. Is there any customizing of your mobile money bulk payment process that is necessary for your work with humanitarian organizations or does it fit within the existing structure of your business? What additional customization is required?
8. What do you see as the biggest business opportunities of working with humanitarian organizations interested in short term bulk payments?
9. What is challenging about working with humanitarian agencies?
10. What are some of the ways in which these challenges can be addressed?
11. If the mobile network is down in a specific area, how long does it take you to have the network back up again?
12. In case of a disaster (for example, an earthquake or flooding), if the mobile network is down in a specific area, how long does it take you to have the network back up again?
13. Do you have any temporary alternative strategies you can employ to provide network access while restoring the network?
14. From your experience working with humanitarian agencies, were you ever faced with a situation where the networks were down and you had to make mobile money payments?
    a. Were you able to make the payments?
    b. How long did it take you to issue the text messages to recipients from when the humanitarian agency made the request?

— *Process & Structure*

1. We would like to understand all the steps involved in mobile money bulk payments from when you receive the request from an organization like the IRC to when our beneficiaries receive the cash out from an agent. Please outline the steps involved in the process.
2. What are the roles and responsibilities of the service provider vs. the financial institution for mobile money in Pakistan?
3. Who are the intermediaries (master agents) involved between you, the service provider/ financial institution, and the agents on the ground?

4. How do you identify these intermediaries (master agents)?
    a. What is your recruitment strategy for acquiring master agents?
    b. What is the selection process for the intermediaries (master agents)?
    c. What are the costs involved in recruiting master agents?
5. What are the requirements to become a master agent or an agent?
6. Are there any legal requirements/restrictions from the government on selection of master agents or agents? What are the legal requirements/restrictions?
7. What channels of communication do you currently have with the master agents?
8. How frequent is the communication with master agents?
9. What are the roles and responsibilities of these master agents?
10. Do you have any direct communication with agents or just with the master agents? What channels of communication do you currently have with agents?
11. How are the master agents compensated?
12. Do you set the commission structure between master agents and agents?
13. Is there a minimum transaction volume target that the master agents and agents have to meet?
    a. What is the minimum transaction volume target?
    b. What are the repercussions of not meeting this target?
14. What data on upcoming payment do you have? How do you currently receive this data?
15. What data on upcoming payments would you like to have?
16. How are your master agents and agents incentivized and supported to participate in bulk payment activities?
    a. How are they made aware of high volume payouts that usually accompany bulk payments?
    b. Do they receive preparation or extra support in advance of large pay-outs?
    c. Do they ever refuse to participate in bulk payments or have complaints about the process?
    d. How often do agents refuse to participate in bulk payments?
    e. What are the reasons for the complaints or the refusal to participate?
    f. What is your process for documenting and addressing the complaints that you receive?
    g. Do you offer any additional incentives for participating in bulk payment activities? If yes, what are these incentives?
17. What is the decision making process & criteria for deciding to expand agent networks?
    a. Do you ever temporarily expand agent networks?
    b. If yes, how do decision making processes differ for temporary vs. permanent agent network expansion?
18. Are there circumstances under which you would terminate your agreement with a master agent or agent? Under what circumstances would you do so?
19. What is your process for monitoring activities related to mobile money?
20. Is there a mechanism in place to receive feedback and/or complaints from customers from their interaction with agents?
    a. What steps do you have in place to deal with these complaints?
    b. Are there any penalties for agents when there are complaints against them?
21. What data on agents and master agents do you currently have?

a. Do you store their phone numbers? Could you expose these to a third party via API or otherwise?
b. Do you have a database with the locations of all agents? Is this database updated live? Could you expose such a database to a third party via API or otherwise?

22. Do you have SMS APIs or bulk USSD notification APIs available?
23. What are the primary challenges you face in expanding your business?
24. What are some potential solutions to address these challenges?
25. What are some of the legal and/or procedural challenges for mobile money transactions? What are potential solutions to help address and/or remove these barriers and challenges?

— *Liquidity*

1. How do you manage liquidity planning?
    a. Who bears the responsibility for agent liquidity? (Service provider staff, financial institution staff, master agent or agent)? How involved are you in organizing liquidity at agent-level?
    b. If master agents or agents- how do you communicate with them to warn them of pending large-scale cash outs?
    c. If agents- do you ever support them with liquidity planning?
2. Do you offer master agents any tools to monitor the electronic value balance of agents?
3. What data on liquidity of agents and master agents do you currently have?
    a. Do you have data on cash liquidity by agent?
    b. Do you have data on the total sums cashed out by agent?
    c. Do you have data on transfers between agents and master agents? What data do you have?
    d. If you have data on liquidity or cash-out, how do you store it? Could you expose it to a third party via API or otherwise?
4. Is there a minimum e-float requirement for master agents or agents? If yes, what is the minimum requirement for each?
5. Who bears the fee for restocking electronic value?
6. What are the mechanisms available to master agents for balancing their portfolio?
7. Do you forecast liquidity needs in the course of normal business?
8. In your opinion, what are the main challenges in managing liquidity? What are the most common solutions?

MASTER AGENTS

— *General*

1. What is the process to become a master agent?
2. Are there any specific requirements you have to fulfill to become a master agent?
3. Do you receive any training to become a master agent? What kind of training do you receive?
4. Do you have a bank account linked to your mobile wallet?

5. What difficulty do you face in using your mobile wallet?

— *Agent Identification & Interaction*

1. How are agents identified?
    a. What is your recruitment strategy for acquiring agents?
    b. What is the selection process for the agents?
    c. What are the costs involved in recruiting agents?
2. How many agents do you manage?
3. What percent of the agents are male vs. female?
4. What percent of the agents that you manage are located in urban areas?
5. What percent of the agents that you manage are located in rural areas?
6. Over what area are your agents spread out? How often do you see them in person? What mode of transport is available to you?
7. How do you communicate with your agents?
8. How is the commission structured between you and the agents? Is this set by the service provider/financial institution or negotiated between you and the agent?
9. Are the agents able to charge customers additional fees to cash out? How is this decided?
10. Do you face any issues with dormant agents? If yes, what percent of the agents that you manage are typically dormant agents?
11. What support services do you offer agents?

— *Services Offered*

1. What cash in and cash out services do you offer?
2. What are the implicit and explicit costs to managing this business?
3. What is the income/profit structure for this business?
4. How many transactions do you carry out in a day? How many of these are withdrawals? How many of these are transfers? How many of these are other? (Specify)
5. How do you replenish your cash supply or e-float value?
6. Is there a minimum e-float requirement? What is it? Is it burdensome to maintain this requirement?
7. What are the mechanisms available to you to balance your portfolio?
8. Do you face any security challenges with transporting or holding cash for your mobile money business?

— *Challenges & Opportunities*

1. In your experience, have you ever processed short term bulk payments?
2. What are the main challenges you encounter in processing short term bulk payments?
3. What are some of the ways in which these challenges can be addressed?
4. From your perspective, what are the benefits of engaging in this type of business?
5. What steps do you have in place to mitigate fraud or cash out by individuals who are not listed as the recipient?

— *Liquidity Management*

1. In normal operations, do you tend to be net positive on e-float or on cash after netting out all float between your agents?
2. Do you face any challenges related to liquidity management? What challenges do you face?
3. What steps do you take to minimize liquidity constraints?
4. If your agent network needs cash, how do you procure it? What is the lead-up time to be able to procure it?
5. If you knew about the need for additional cash in your agent network in advance, would that change how you procure the cash? Would it become easier to meet the demand for cash?
6. How do you get cash to and from agents?
7. Do you communicate with the service provider and/or financial institution headquarters or someone else on liquidity? If someone else, who do you communicate with on liquidity?
8. How do you manage liquidity planning?
    a. Who bears the responsibility for agent liquidity? (Service provider, financial institution, master agent or agent)?
    b. How does the service provider communicate with you to warn you about pending large-scale cash outs?
    c. Do you receive any support for liquidity planning? What sort of support do you receive for liquidity planning?
    d. Are there any legal requirements or procedural constraints that you face related to liquidity planning and management?
9. How are you incentivized and supported to participate in bulk payment activities?
    a. How are you made aware of high volume payouts that usually accompany bulk payments?
    b. Do you receive preparation or extra support in advance of large pay-outs? What is the kind of support that you receive?
    c. Do you ever refuse to participate in bulk payments or have complaints about the process? What are the reasons for the refusal?
10. How are your agents incentivized and supported to participate in bulk payment activities?
    a. How are they made aware of high volume payouts that usually accompany bulk payments?
    b. Do they receive preparation or extra support in advance of large pay-outs? What kind of support do they receive?
    c. Do they ever refuse to participate in bulk payments or have complaints about the process? What are the reasons for the refusal? What are the types of complaints you receive from agents about participating in bulk payments?

AGENT INTERVIEWS

— *Profile & Background*

1. What is the process to become an agent?
2. Are there any specific requirements you have to fulfill to become an agent?

3. Do you receive any training to become an agent? What kind of training do you receive?
4. Do you have a bank account linked to your mobile wallet?
5. What difficulty do you face in using your mobile wallet?

— *Services Offered*

1. What cash in and cash out services do you offer?
2. Do you receive any support from the master agents or the service provider/financial institution to deliver these services?
3. What are the implicit and explicit costs to managing this business?
4. What is the compensation structure for the mobile money services that you offer?
5. Is there a minimum e-float requirement? What is it? Is it burdensome to maintain this requirement?
6. How often do you need to acquire additional e-float or cash? Which one are you usually short of?
7. How do you balance your cash in/out portfolio? What steps do you have to take to withdraw/ deposit cash or load e-value to your account?
8. How many transactions do you carry out in a day? How many of these are withdrawals? How many of these are transfers? How many of these are other? (Specify)
9. How do you replenish your cash supply or e-float value?
10. Do you face any security challenges with transporting or holding cash for your mobile money business?
11. Are you mobile or do you always operate in one place?
12. How far would you travel to facilitate customer cash outs? What forms of transport do you have available?

— *Challenges & Opportunities*

1. In your experience, have you ever processed short term bulk payments?
2. What are the main challenges you encounter in processing short term bulk payments?
3. What are some of the ways in which these challenges can be addressed?
4. From your perspective, what are the benefits of engaging in this type of business?

— *Liquidity Management*

1. What steps do you take to minimize liquidity constraints?
2. Who do you communicate with on liquidity (service providers, financial institution, and master agent)?
    a. If service provider or financial institution, do you communicate with the service provider or financial institution headquarters or someone else at the organization on liquidity? If someone else, who do you communicate with?
    b. Does the service provider or financial institution have an idea of your liquidity?
    c. Does the master agent have an idea of your liquidity?
    d. Do you communicate with other agents on liquidity? How do you do that?
3. When you acquire cash, do you always do it through the master agent? How long does it take

you to acquire cash?

   a. Do you have other cash-flow generating business that supports liquidity?

4. How do you manage liquidity planning?
   a. Who bears the responsibility for agent liquidity? (Service provider, financial institution, master agent or agent)?
   b. How does the service provider/master agent communicate with you to warn you about pending large-scale cash outs?
   c. Do you receive any support for liquidity planning? What sort of support do you receive for liquidity planning?
5. How are you incentivized and supported to participate in bulk payment activities?
   a. How are you made aware of high volume payouts that usually accompany bulk payments?
   b. Do you receive preparation or extra support in advance of large pay-outs? What is the kind of support that you receive?
   c. Do you ever refuse to participate in bulk payments or have complaints about the process? What are the reasons for the refusal?

ANNEX B

Table 3: Branchless Banking Players in Pakistan

	Bank Name	BB Model	Commencement	Super Agent *Only for 1:1 model*	Technology Platform	Status
1	Tameer Microfinance Bank	Easypaisa *One-to-One Model*	Oct 2009	Telenor Pakistan	Fundamo	Live
2	United Bank Limited	Omni *One-to-Many Model*	Apr 2010	-	Developed In-House	Live
3	Askari Bank Limited	Timepey *One-to-One Model*	Nov 2012	Zong	i8 Microbank	Live
4	Waseela Microfinance Bank	MobiCash *One-to-One Model*	Dec 2012	Mobilink GSM	Utiba	Live
5	Habib Bank Limited	HBL Express *One-to-Many Model*	Apr 2013	-	Sybase 365	Live
6	U Microfinance Bank Limited	UPaisa *One-to-One Model*	Jul 2013	Ufone GSM	Sybase 365	Live
7	MCB Bank Limited	MCB Lite *One-to-Many Model*	Dec 2013	-	Fundamo	Live
8	Bank Alfalah Limited	Mobile Paisa *One-to-One Model*	Dec 2013	Warid Telecom	Monet	Live
9	Meezan Bank Limited	Upaisa	Nov 2015	Ufone		