

DIGITAL FINANCIAL SERVICES ECOSYSTEM IN BIDI BIDI REFUGEE SETTLEMENT



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CHAPTER 1: INTRODUCTION

This document consists of a mapping of the six pillars of the DFS ecosystem in Bidibidi Refugee Settlement and Host Community.

1.1 Project Background

World Food Programme (WFP) and the United Nations High Commission for Refugees (UNHCR) have made a strategic decision to transition from material aid support to refugees to cash based transfers. This is driven by the increasing cost of delivering food and material aid. Close to US\$12,000,000 is spent monthly on food

distribution. The decision is supported by research that shows that beneficiaries make smart spending decisions that mitigate against food insecurity.

It is upon this background that implementing partners DanChurchAid (DCA), Mercy Corps (MC) and World Vision (WV) are

actively pursuing payments digitization implementation.

This document consists of a mapping of the six pillars of the DFS ecosystem in Bidibidi Refugee Settlement and Host Community. The objectives of the Digital Financial Services (DFS) mapping in Bidibidi were as follows.

1.2 Research Objectives

- To establish the financial lives of refugees and host community: what is their cash mobility ecosystem like and what are their financial coping mechanisms like?
- To establish if there are there financial products and services that would accelerate transition to sustainable livelihoods/income generation.
- To establish if there is a trust in the existing delivery of DFS by Financial Service Providers (FSPs). Are FSPs delivering the right products to the community? And what are the opportunities that exist for the private sector either as providers of financial services, produce off takers and other services.
- To establish the key barriers to accessing financial services channels at affordable costs and link them to broader financial services. Also, establish if any additional research and data is needed in the country to address the key barriers to financial services.
- To establish the type of capacity building at the regulatory level that is needed to engage with the policymakers to address the barriers.
- To establish the type of payment and financial infrastructure is needed to support digital payment innovation in Bidibidi Settlement and surrounding host community.
- To identify projects that can piloted to enhance digital payments.

Research Objectives



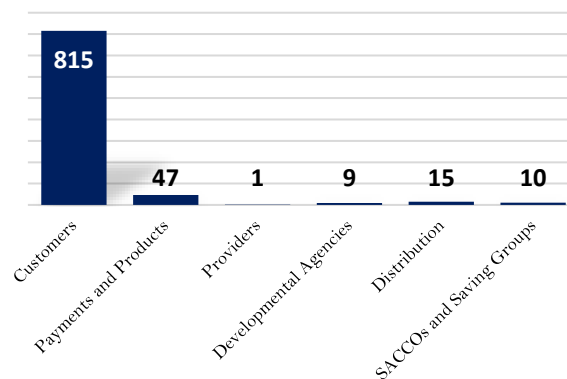
1.3 Research Methodology

The approach used was data centric with data being collected from all stakeholders in the digital financial services ecosystem. In addition to primary data collected from the field, we also tapped into expert opinion. Overall, the research process involved questionnaire formulation, data collection, analysis and documentation.

A total of six questionnaires (Focus groups, Policy & Regulation, Customer, Providers, Developmental Agencies, and Distribution) were designed for data collection.

- **Policy & Regulation:** Main target were institutions such as Uganda Communications Commission (UCC); Ministry of Finance, Planning and Economic Development (MoFPED); Bank of Uganda and Financial Sector Deepening Uganda (FSDU).
- **Customers:** Main target were refugees and the host community.
- **Providers:** Main target were providers of digital financial services operating in Bidibidi.
- **Development Agencies:** Target were developmental agencies operating within Bidibidi.
- **Distribution:** For the distribution pillar, the target were mobile money agents.
- **Focus Groups:** Main target were saving groups.

Number of Respondents



A sample of 815 customers were interviewed during the survey.

The data collection process took 11 days in Bidibidi Refugee settlement and host community. Additionally, data was collected from key policy and regulation stakeholders over a period of one week. Below is a summary of total responses collected from different stakeholders.

1.4 Current State of DFS Development in Uganda

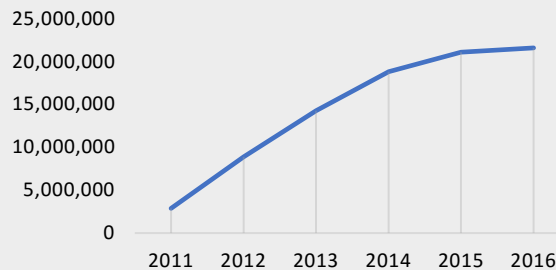
Digital Financial Services (DFS) refers to the use of digital channels such as mobile phones, cards, computers, and tablets to deliver financial services. In Uganda, the term mobile money is widely associated with DFS because of wide usage of mobile phones to access different financial services.

Mobile phone usage across the African continent has evolved from being merely a communication platform to include service delivery. The ability of mobile network operators and other stakeholders to innovatively find new uses for mobile phones has greatly changed the way people use mobile phones. Several digital financial services such as payments, credit, savings and insurance have been made possible due to innovations in mobile phone functionality.

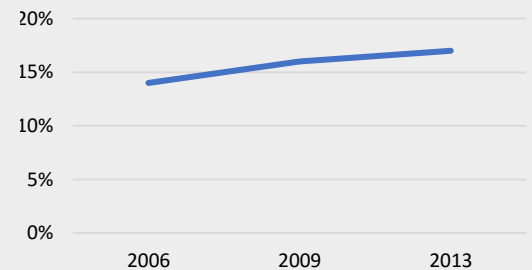
Digital financial transactions carried out in Uganda are, among other platforms, carried out on the mobile money platform. Based on data from the Bank of Uganda Annual Supervision Report the number of registered mobile money accounts and value of transactions have been on an upward trajectory since mobile money was introduced in Uganda.

Growth in Mobile Money transactions has been on an upward trajectory since service inception.

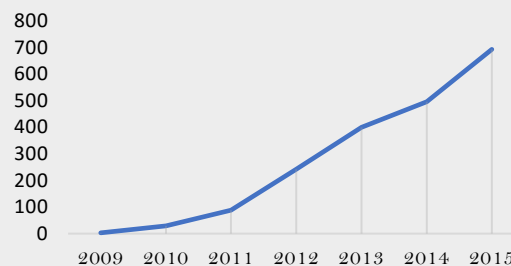
Number of Registered Mobile Money Accounts



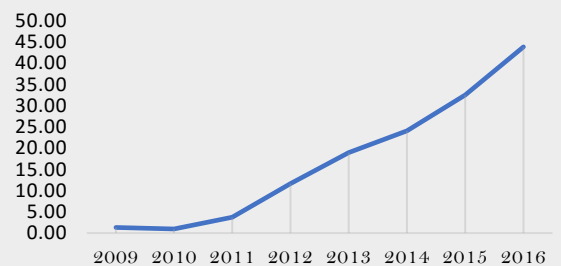
State of Financial Inclusion in Uganda



Number of Mobile Money Transactions in Millions



Value of Mobile Money Transactions in Trillion UGX



Source: Bank of Uganda



CHAPTER 2: CUSTOMERS



As identified by UNCDF's MM4P Programme, Customers are a key pillar of a Digital Financial Services ecosystem. This chapter consists of an analysis of Users and Non-users of DFS within Bidibidi Refugee Settlement and Host Community. It analyses the livelihood of customers, their financial coping mechanisms, adoption and usage of DFS and barriers to accessing DFS.



KEY CUSTOMER CHARACTERISTICS IN BIDIBIDI REFUGEE SETTLEMENT

As part of the process of mapping out the DFS ecosystem in Bidibidi, key research objectives included establishing the financial lives of customers, their financial coping mechanisms, attitudes towards DFS delivery challenges and barriers faced when using DFS.

CUSTOMER PROFILING



50%

Have primary level as the highest qualification



25%

Of Women are into farming. A further 24% run small businesses



72%

Have a monthly income of less than UGX 50,000 per month



38%

Of Women not engaged in any profession versus 20% for men

FINANCIAL COPING MECHANISMS



68%

Have no money left after paying for expenses



45%

Of social payments recipients use it for school fees. 30% use it for food



38%

Use cash-to-MM account to make social transfers



49%

Are in saving groups. 64% of those who join do so to get loans

DFS ADOPTION AND USE & CUSTOMER EXPERIENCES



19%

Use mobile money as a saving method. 36% own a cash box



47%

Adopted mobile money in-order to be able to receive money



25%

Use their mobile device for financial transactions



33%

Charge personal fees after cash-in transactions against guidelines

ATTITUDES TOWARDS DELIVERY OF DFS & BARRIERS TO ACCESSING FINANCIAL SERVICES



75%

Obtain assistance from MM agents in case of MM issues



50%

Don't own a mobile phone



72%

Of women don't own a mobile phone Vs 28% of men



52%

Are not registered with MM due to lack of registration docs



35%

Experience network outage problems

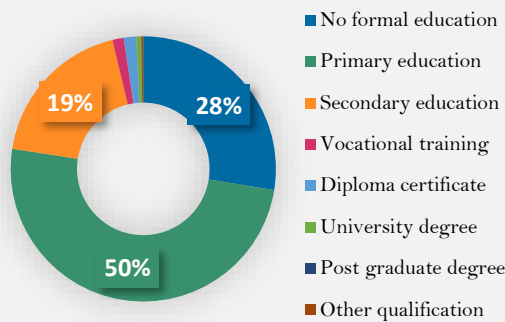
2.1 Customer Profiling

Half of surveyed customers have a primary level education as the highest qualification.

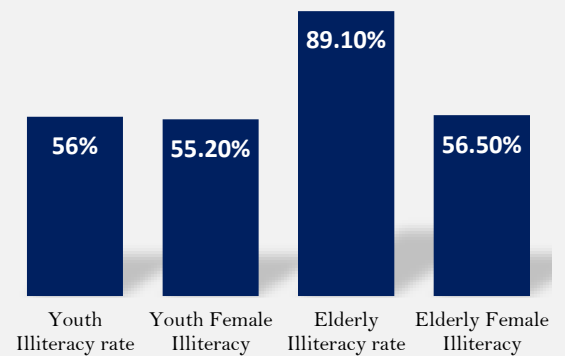
Education Level: Majority of customers have low levels of formal education. Half of survey respondents have primary level of education as the highest qualification, another 19% have a secondary level education and 28% do not have any formal education.

Customer Literacy: Since there is no data on the level of literacy among customers of Bidibidi, the literacy level of South Sudan is used as proxy because most of the refugees in Bidibidi are South Sudanese. Based on data from the World Data Atlas, 56% of the youth in South Sudan are illiterate. Similarly, 89.10% of the elderly are illiterate. Additionally, customers are not completely knowledgeable when it comes to using DFS. For example, up to 46% of customers go to an agent to perform a basic activity such as buying airtime from their mobile money account.

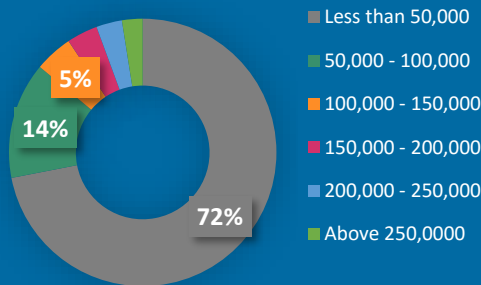
Education Level



Customer Literacy



Monthly Income



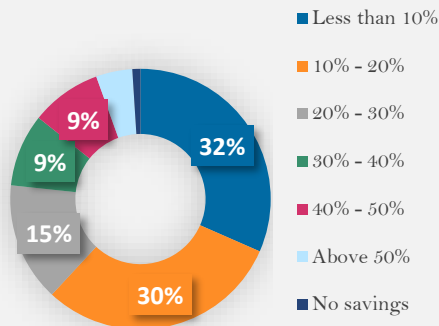
Income Levels: Income levels in Bidibidi are mostly low with 72% of surveyed customers earning less than UGX 50,000 and another 14% earning between UGX 50,000 to 100,000 a month. Overall, a combined 86% of surveyed customers earn less than UGX100,000 a month.

72% of surveyed customers earn less than UGX 50,000 a month.

2.2 Financial Coping Mechanisms

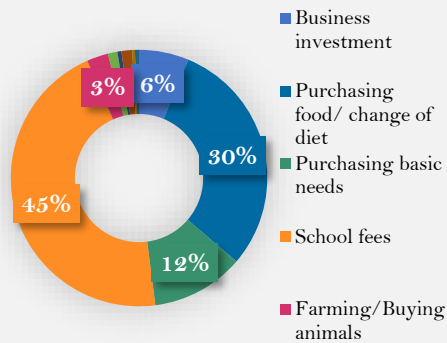
32% of surveyed customers who save do so with less than 10% of their income.

Proportion of Income Saved

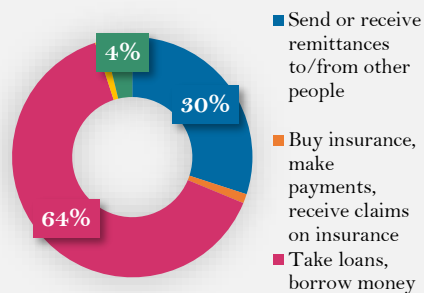


45% of customers who receive social remittances use it for paying school fees.

Uses of Cash Remittance



Use of SACCO Account



Savings: Despite the low levels of income earned by most customers, there is a moderate savings culture in the region with 50% of customers indicating that they save. Of the customers who save, 32% of customers save less than 10% of their income and a third save 10% to 20% of their income.

Motivations for saving are mainly to cover basic needs ranging from medical needs, to education, and being able to cover emergency expenses.

Social Remittances: Furthermore, 40% of customers receive social remittances.

Forms of social transfers include cash, food, sanitary pads, soap, farming tools and seeds. Customers use social transfers for several purposes. 45% of recipients of social payments use the cash for school fees, other uses include; purchasing food (30%) and covering other basic needs (12%).

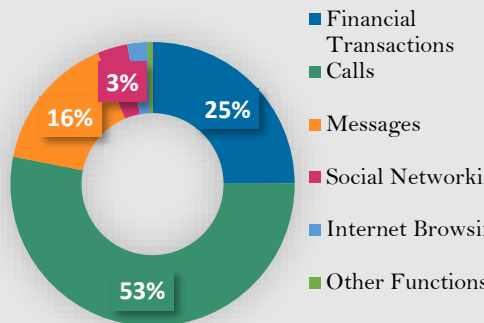
Loans from SACCOs: 51% of customers of are not in savings groups. Of those that are, the main service used is borrowing followed by sending or receiving remittances. It is important to note that though most people use their saving groups to borrow, the main activity of such groups is saving.

2.3 DFS Adoption and Use

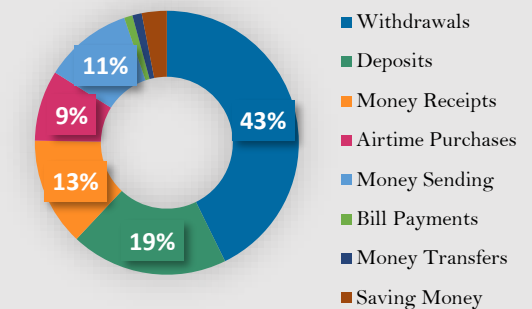
The most common usage of mobile phones is making voice calls followed by making financial transactions.

Usage of Mobile Phones: Mobile phones in the area are predominantly used for making phone calls. The second most used function is financial transactions, followed by sending messages. The main financial transactions conducted by customers are cash in cash out transactions, 43% of customers indicated that they had conducted cash out transactions and 19% have conducted cash in transactions.

Use of Mobile Phone



MM and DFS Utilized Before

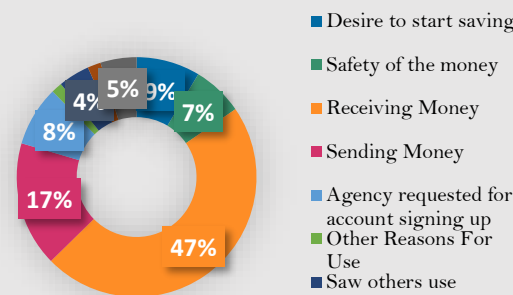


47% of customers use mobile money to receive money.

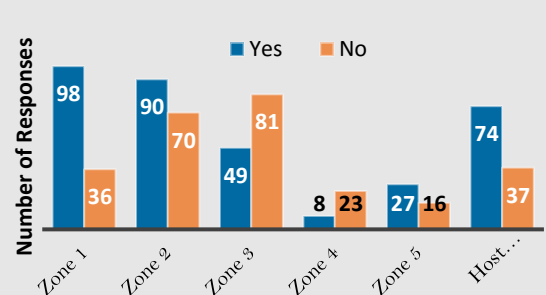
Usage of Mobile Money: 47% of customers are motivated to use mobile money to receive money. Other key drivers of adoption of Mobile Money include desire to start saving and to ensure safety of the money.

A significant proportion (45%) of customers within the refugee settlement have not used mobile money services before. A large majority of customers in Zone 1 have used mobile money services, however experience with mobile money in other zones is not as prevalent. As expected, experience with mobile money in the host community is also high. Experiences with mobile money are more prevalent in zone 1 because zone 1 is the first zone that was setup and has had the opportunity to develop faster.

Reasons for Adoption of MM



Experience Using Mobile Money

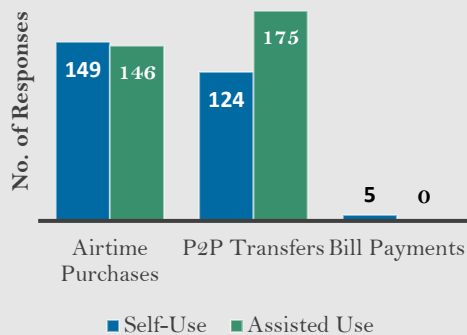


2.4 Customer Attitudes Towards Delivery and Familiarity with DFS

Surveyed customers are least familiar with conducting bill payments from their mobile money accounts.

75% of surveyed customers rely on Mobile Money agents for Mobile Money related assistance.

Familiarity with Transactions



Familiarity with Mobile Money: A lot of customers (59%) are not able to conduct transactions on their own and enlist the help of Mobile Money agents or a relative to transact using mobile money. Customers are most familiar with airtime purchase transactions and least familiar with bill payments. This can be explained by the fact the practice of paying bills using mobile money is not widely adopted in Bidibidi refugee settlement and host community.

Extra Fees Charged by Agents: Despite mobile money guidelines indicating that agents should not charge any fees directly to customers, 33% of customers in Bidibidi have experienced agents asking for payment after cash-in transactions.

Primary Source of Help for Use of Mobile Money: Many customers in the area require assistance from agents to conduct transactions due to low literacy and phone literacy levels. Customers in the region typically do not make complaints or seek assistance from MNO customer service. Instead most customers (75%) seek assistance from mobile money agents. There is therefore need for agents in the region to have adequate training to deal with customer queries.

Trust in DFS: Focus group discussions revealed that customers in the area generally trust Digital Financial Services. However, due to registration issues, some people resort to using Ugandan Nationals' ID's which creates uncertainty with ownership of funds on mobile money accounts.

Challenges with Using DFS: Some of the problems experienced by customers include: technical issues with the service including network failures and service interruptions, failure to receive SMS receipt, sending money to wrong number and not being able to recover it, lack of knowledge on use of service, forgetting PIN, and insufficient funds at the agent's location.

Extract of Customer Attitudes Towards DFS Delivery in Bidibidi

CASE STUDY: SAVING GROUPS AND ATTITUDES TOWARDS MOBILE MONEY

36% of customers use a savings group. Focus group discussions with savings groups revealed that savings groups also use informal saving methods like cash boxes. Annual savings in savings and lending groups ranges from UGX 150,000 to 1.6 Million.

Based on focus group discussions held with Village Savings and Loan Associations (VSLAs), cooperatives and other groups, funds are kept with a treasurer or in a safe box. Transactions are recorded using a mostly manual record keeping system. For example, the High Mission saving and loans group in zone 3 uses a stem marking approach. With this approach, if someone brings UGX 2,000 the stems are marked once, if UGX 4,000 is brought, the stems are marked twice.

Majority of savings and lending groups are however willing to adopt the use of mobile phones for their group activities but are limited by cost of mobile phones and access to agents. Mobile phones and features tailored to these groups are cited as changes that could increase adoption and use of mobile money. For example, during one of the interviews held, one of the group members asserted that if a product that showed an individual's saving balance on their mobile phone was available, members would be willing to use digital solutions.

Further, one of the key things that stood out in the focus group discussions was a statement saying, "no matter the mechanism of saving used, most people understand why it is important to save." Below is a summary of other insights gathered from a few of the groups interviewed using focus group discussions.

Iveta Longun, Female Saving Group in Zone 1

- Record books are kept of deposits made and credit issued.
- Only 30% of members own mobile phones, the rest of the membership is waiting for cheap phones from Nethope.
- When asked on what could prompt the group to use mobile money, a member said, "more group combination products should be made."

Iveta Longun, Saving Group in Zone 2

- The group manages savings process through a record book and a security mechanism that involves dual control of the money box key and constantly changing the custodian of the money box.

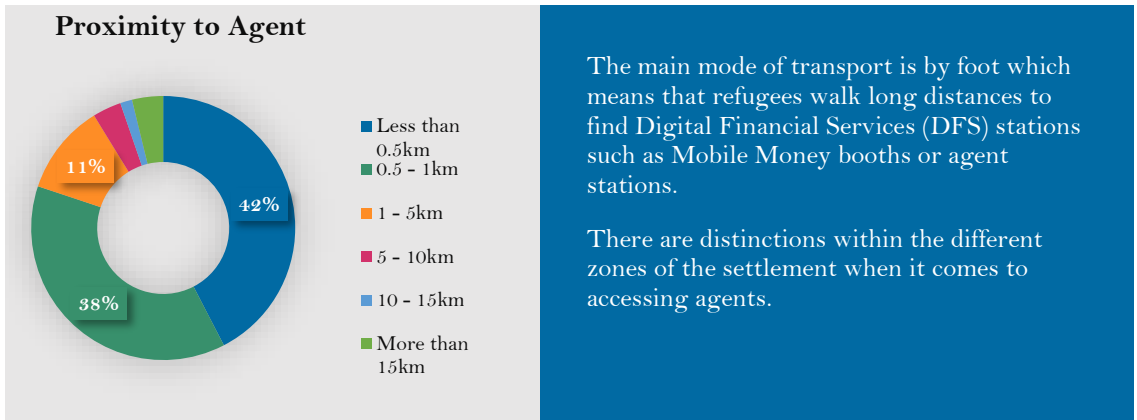
Grace Farmers Saving Group in zone 2

- The treasurer keeps funds along with the record book.
- "The ability for the members to see their cash balances on the phone" was quoted by a member as a reason that would encourage the group to use a digital wallet for group savings.
- Access to mobile phones would increase uptake and se of mobile money services.

Insights from saving groups

2.5 Barriers to Accessing Digital Financial Services

2.5.1 Agent Proximity

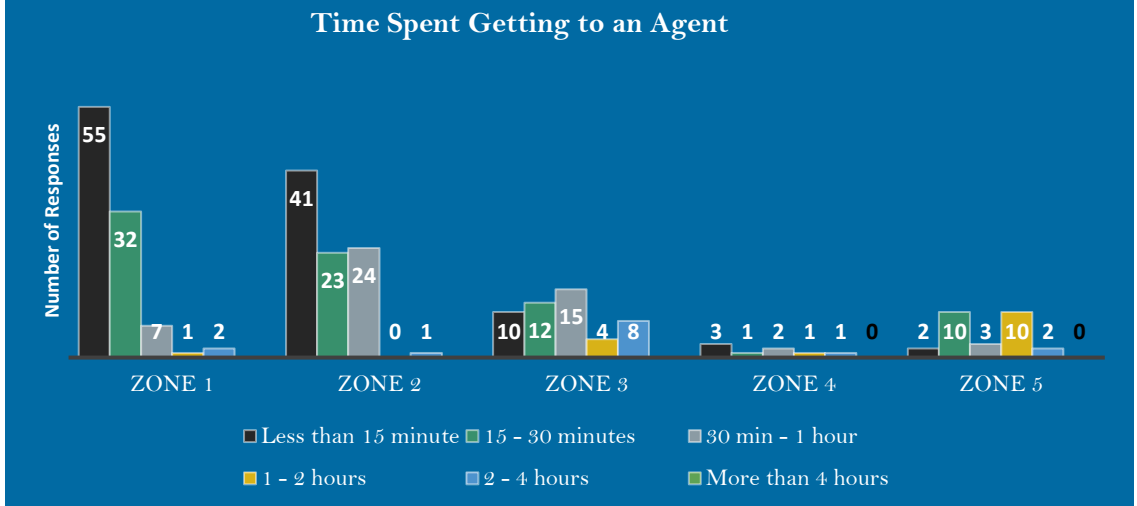


The main mode of transport is by foot which means that refugees walk long distances to find Digital Financial Services (DFS) stations such as Mobile Money booths or agent stations.

There are distinctions within the different zones of the settlement when it comes to accessing agents.

Customers in Zones 3 to 5 travel longer distances to reach an agent. This presents a challenge to adoption of mobile money since most customers must walk to the mobile money agent. Most of the people travelling long distances, such as more than two hours, move from a given zone to Yumbe town council because agents in the zone may not have enough liquidity to cover withdrawal and deposit needs. For example, in one of the interviews held with a customer in zone three, the customer stated that he spends about UGX 12,000 travelling from zone 3 to Yumbe town council using a makeshift taxi. However, on a boda-boda (motorcycle taxi), the cost of a round trip from zone 3 to Yumbe town council can go for about UGX 20,000.

Customers in zone 1 find it easier to access Mobile Money agents when compared to customers in other zones.

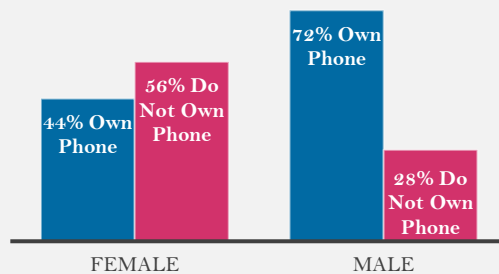


2.5.2 Phone Ownership

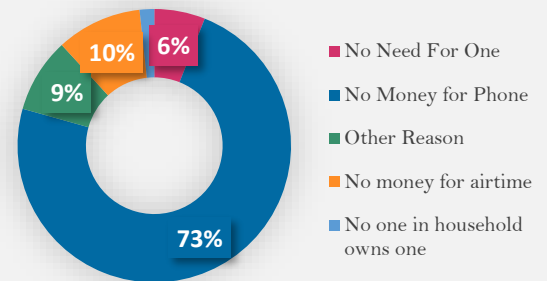
Phone ownership is higher among the male population when compared to female population.

Mobile phone penetration in the area is still low. Many customers in the Bidibidi (52%) do not own mobile phones, however a majority of those without phones still use mobile money services through an agent, relative, friend or neighbor's phone. There is a wide gender disparity in phone ownership. For example, 56% of women do not own phones as compared to 28% of men. The primary reason for low mobile phone penetration is due to lack of enough money to afford a phone.

Phone Ownership by Gender



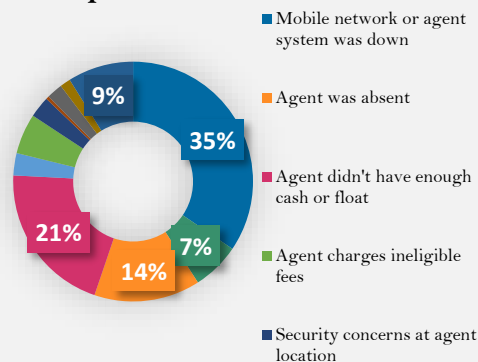
Barriers to Phone Ownership



2.5.3 Other Challenges

Other challenges faced with usage of DFS include network outages, absence of agents at Mobile Money location and agent liquidity constraints.

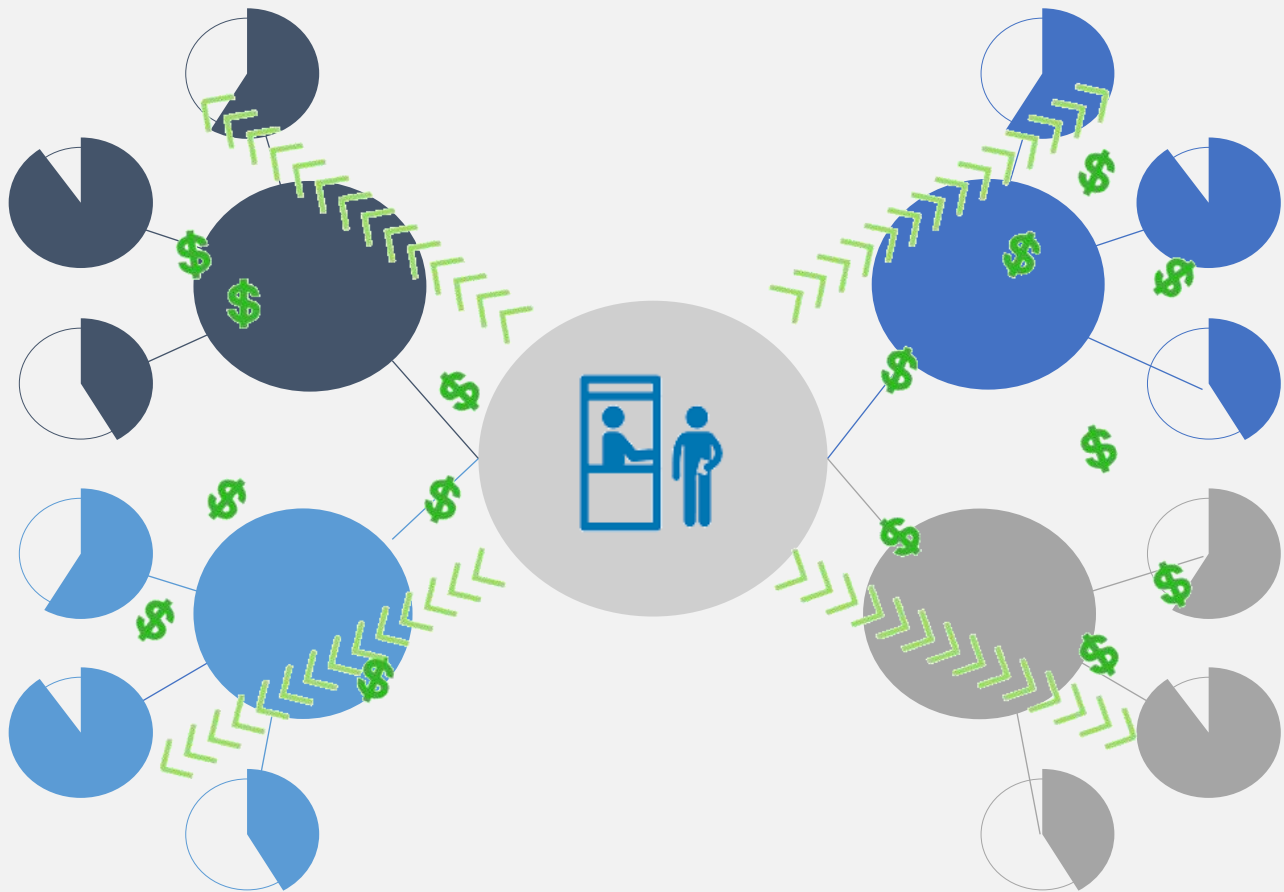
Mobile Money/DFS Experiences



Other challenges faced include network issues whereby the network or agent's system is down and lack of sufficient float or cash to perform transactions. Agents typically close shop if they run out of cash or float.



CHAPTER 3: DISRIBUTION



As identified by UNCDF's MM4P Programme, Distribution is a key pillar of a Digital Financial Services ecosystem. This chapter consists of an analysis of distributors within Bidibidi Refugee Settlement and Host Community. It analyses and profiles distributors, float and Liquity management, commissions, and distribution constraints and barriers.



KEY DISTRIBUTION CHARACTERISTICS IN BIDIBIDI REFUGEE SETTLEMENT

DISTRIBUTOR PROFILING



60%

Mobile Money agents are in 18 -25 age group



67%

Of agents use capital of less than UGX 2M (EUR 440) to start up the business



82%

Of mobile money agents receive training prior to commencing work



27%

Of mobile money agents are women

FLOAT AND LIQUIDITY MANAGEMENT



37%

Of agents start off the day with UGX 300,000 to UGX 500,000 (EUR 66 to EUR 110) in float



55%

Of agents start off the day with UGX 1M to UGX 5M (EUR 220 to EUR 1100) in cash



55%

Of agents rebalance float at least once a day



37%

Of agents use fellow agents for float replenishment

MOBILE MONEY TRANSACTIONS AND COMMISSIONS



53%

Mobile Money transactions are most frequent during morning hours



40%

Of mobile money services offered are P2P transfer & easy load



60%

Average monthly commission is between UGX 100,000 to UGX 300,000 (EUR 22 to EUR 66)



70%

Of agents have seen a positive change in commissions from start-up

AGENCY BANKING, DISTRIBUTION CONSTRAINTS AND BARRIERS



33%

Of mobile money agents have bank accounts



21%

Of agents run out of float regularly



28%

Of agents face network outage problems



73%

Of agents face language barrier problems

3.1 Distributor Profiling

60% of agents are in the 18 to 25 age group.

Within Bidibidi refugee settlement and surrounding areas, the mobile money agent business is dominated by the young generation with up to 60% of agents being in the 18 – 25 age group and only a minority 7% being above 45 years. Furthermore, most of the people working as agents have an Ordinary Level certificate or lower and combined 66% of agents have either a primary level or O' Level certificate.

Closely allied with the ongoing discussion on agent profiles, up to 73% of surveyed agents are male while 27% are female. Most of these agents (47%) have been operating as agents for a period of one year, another 33% have been in the business for 2 years, the entire duration over which Bidibidi refugee camp has been open.

Reasons some agents gave for finding it easy to set up MM business

- Process of setting up is mostly fast especially if an agent has all the requirements.
- It was fast and easy to set up.
- Relatively easy for one to become an agent even if they don't own the business. Super-agent model makes it possible for this to happen.
- Presence of MNO dealers such as Nilecom who go to the settlement to recruit and train agents.

Reasons some agents gave for finding it hard to set up MM business

- Not enough capital.
- Hard to get a convenient place.
- Low customer base.
- Low volume of transactions.
- Difficulties with card processing

- Need to generate money to meet family obligations e.g. school fees.
- Employment and income generating opportunity.
- There is a scarcity of agents in the area. Becoming an agent thus presents a business opportunity in an unsaturated market.

Reasons given for becoming mobile money agents

3.2 Process of Becoming an Agent

It is common practice for prospective agents to start the working using an existing agent's transaction line.

According to the Yumbe General Manager of REFASU a refugee card can act as a substitute for a national ID card when recruiting agents.

Ease of Setting up Business: Overall, 47% of surveyed mobile money agents find it neither hard nor easy to set up a mobile money business, 33% find it hard and 20% find it easy.

Start Up Capital: Most people who start up a mobile money agent business do so with very little start-up capital. Of the surveyed agents, none started the business with capital above UGX 4M. Instead, up to 67% started with capital of less than UGX 2M while 33% started up with capital of UGX 2M to 4M. All surveyed agents quoted personal savings as the source of capital for starting up the mobile money business.

Besides the normal process of registering with a mobile money agent network, certain agents merely purchase an existing agent line from another agent and commence business. Below are general requirements

- Four passport photos.
- Handwritten Local Council (LC) letter.
- A national identification card or refugee card.
- Acknowledgement form.

Requirements for becoming an Airtel money agent according to the REFASU (Airtel Distributor) General Manager in Yumbe

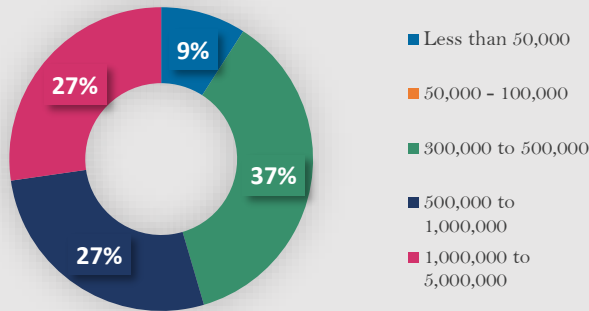
Additionally, prospective agents are usually given training with up to 87% of surveyed agents saying they received training prior to becoming an agent. Overall, the training is sufficient with up to 92% of trained agents saying the training received was adequate. However, up to 53% of surveyed agents are not monitored by mobile network operators. Based with interactions with these agents, only Airtel currently does the monitoring. With the nature of monitoring work done being as follows: assess progress of agent's business, assess whether services are being provided, ask if there are any issues and check records.

3.3 Agent Capacity

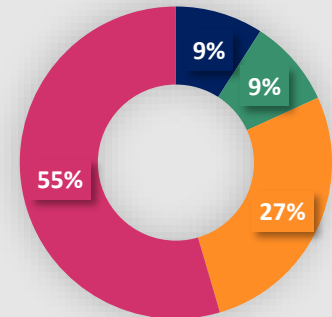
Mobile money agents in Bidibidi and the host community operate at very low capacities when relative to agents in bigger towns. Overall, 37% of surveyed agents start off the day with UGX 300,000 to UGX 500,000 in float and 55% start off the day with UGX 1,000,000 to UGX 5,000,000 in cash. Agents start off the day with higher cash than float because as previously explained, cash out transactions are more popular than cash in transactions.

Greater demand for cash out transactions prompts agents to start the business day with more in cash than float.

Average Beginning Float



Average Beginning Cash

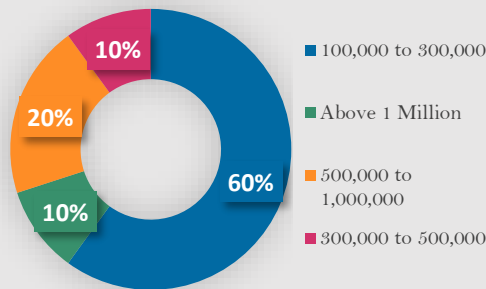


3.4 Commissions

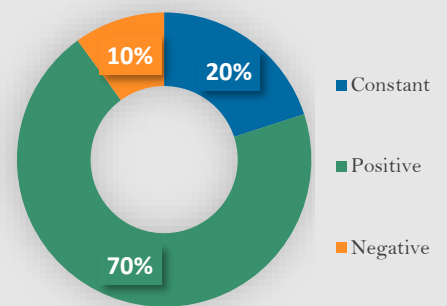
70% of surveyed mobile money agents asserted that since they started their business, commissions have been positive and improving. The main reason for this is the fact that transactions have been increasing.

60% of surveyed agents earn a monthly commission of UGX 100, 000 to UGX 300,000.

Average Monthly Commission



Change in Commission Since Start Up

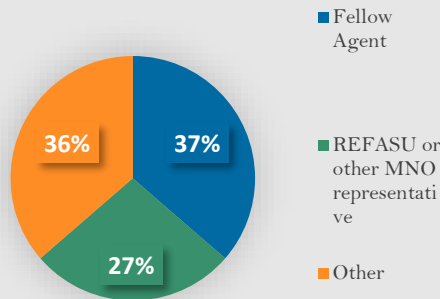


3.6 Liquidity Management

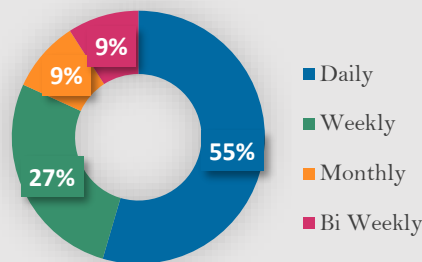
Most agents replenish float from fellow agents.

55% of surveyed agents find it necessary to replenish float daily.

Channel for Float Replenishment



Frequency of Float Replenishment



- 50% find the process more on the hard side – ie. 10% very hard, 40% hard,
- 30% find the process more on the moderate side -30% moderate
- 20% find the process more on the easy side. From the dat10% easy, 10% very easy

Bidibidi agent perceptions on the float rebalancing process

Channel for Rebalancing Float:

Mobile Money agents replenish float through fellow agents, dealers and distributors working on behalf of MNOs other ways. The other ways in which float rebalancing is done is through letting float and cash transactions naturally balance out. For example, if an agent has cash and no float, they will only do deposits.

Frequency of Rebalancing Float:

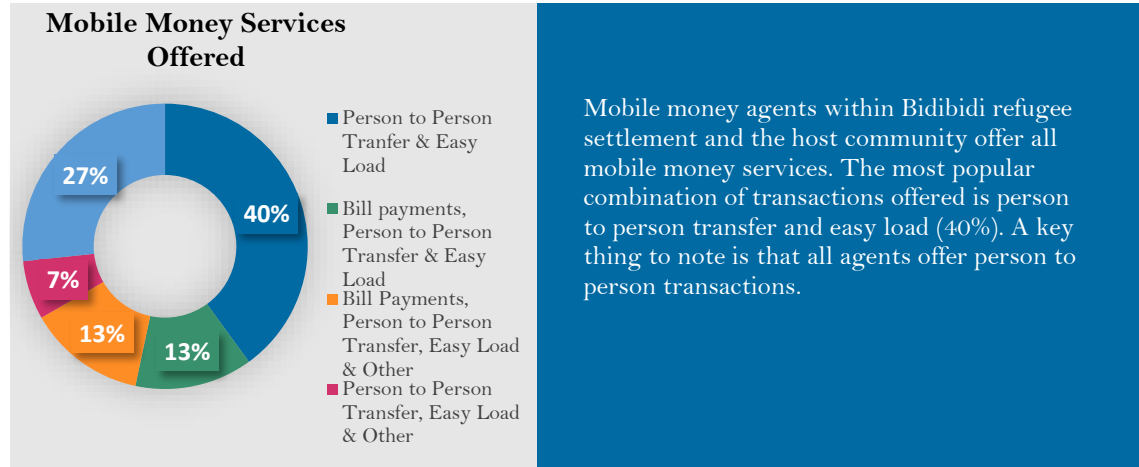
Furthermore, since agents operate at very low capacities, they tend to rebalance float very regularly, from the survey, up to 55% of surveyed agents asserted that they replenish float daily. For Airtel, REFASU agents are supposed to deliver float to mobile money agents while for the case of MTN float rebalancing is mostly through inter agent transfers and last mile delivery by dealers such as Nilecom.

Ease of Rebalancing Float: To make the float rebalancing process much easier, agents in Bidibidi refugee settlement and the host community feel setting up bank branches or rebalancing centers would help.

To the left are agent perceptions on the float rebalancing process.

3.7 Mobile Money Services Offered

P2P and easy load are the most sought-after services from agent points.

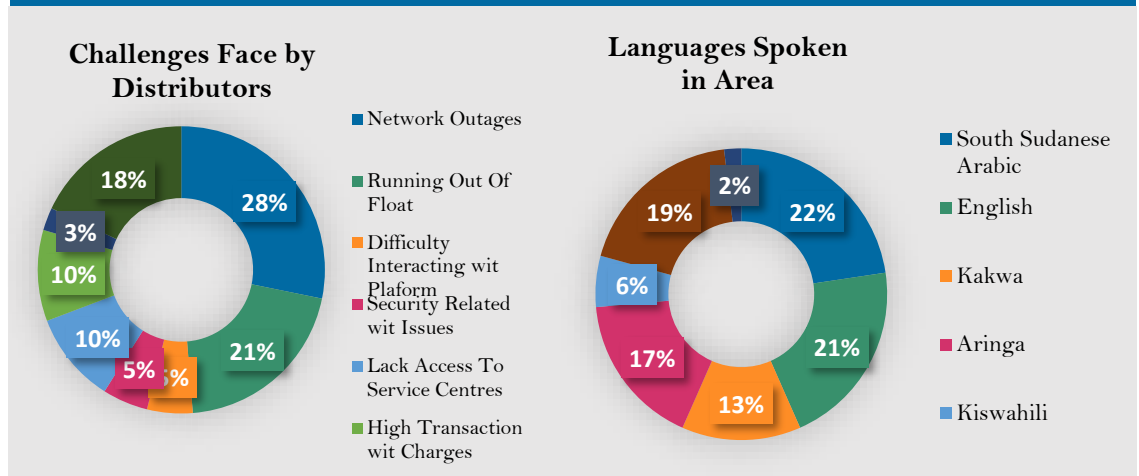


3.8 Distribution Constraints and Barriers

There are several challenges faced by agents. The most predominant of which are network outages (28%) followed by running out of float (21%). Language barrier is another key challenge faced by mobile money agents with up to 73% of surveyed mobile money agents stating that they face language barriers. The language barrier is mostly caused by the fact that Yumbe District in which Bidibidi refugee camp is located is a diverse community with several languages being spoken by both the host community and refugees.

Also, the language barrier is made worse by the fact that refugees speak a language which the host community who make up the agent network do not speak.

Running out of float and network outages are the most common challenges faced by agents.





CHAPTER 4: PRODUCTS AND PAYMENTS



As identified by UNCDF's MM4P Programme, Products and Payments are a key pillar of a Digital Financial Services ecosystem. This chapter consists of an analysis of products and payments within Bidibidi Refugee Settlement and Host Community. It examines the different products most commonly used and looks at the most predominant types of payments: person to person, business to person, person to business and developmental agency to person.



KEY STATISTICS OF DFS PRODUCTS AND PAYMENTS IN BIDIDBIDI

PRODUCTS



All

Service providers provide airtime purchase and money transactions



All

Service providers provide bill & utility payments and ATM banking



MTN

Provides paying fees and taxes, Mo Kash and MoMoPay



Airtel

Provides Airtel Weza which is a group wallet

DEVELOPMENTAL AGENCY TO PERSON (D2P) AND GOVERNMENT TO PERSON (G2P) PAYMENTS



62.5%

Of agencies are unable to meet demand for social payments



72%

Of social payments are made by cash



31%

Of residents lack mobile phones hence cash is used



25%

Of network disruptions affect digital solutions

PERSON TO BUSINESS (P2B) AND PERSON TO PERSON (P2P) PAYMENTS



77%

Of businesses prefer to receive cash payments for goods and services



80%

Of P2P transactions are cash out transactions



60%

Of cash in transactions are for saving



40%

Of cash out transactions are between UGX 200,000 to UGX 400,000 (EUR 44 to EUR 88)

BUSINESS PAYMENTS, PAYMENT AND FINANCIAL INFRASTRUCTURE NEEDED TO SUPPORT DFS



67%

Of businesses do not use mobile money to make payments



43%

Of businesses earn income of less than UGX 200,000 (EUR 44) monthly



79%

Of businesses trust mobile money and e-wallets



67%

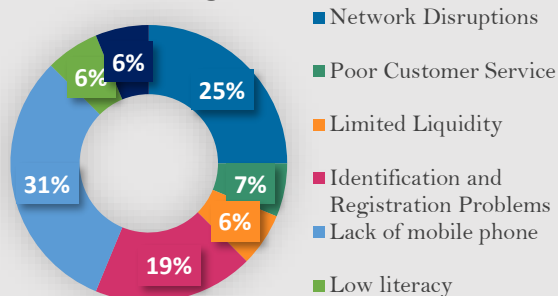
Of businesses feel an increase in number of agents would increase usage of DFS

CASE STUDY: DEVELOPMENT AGENCY TO PERSON PAYMENTS

Currently, there are several development agencies operating in Bidibidi refugee settlement. Development programs have an average duration of 1 year. Renewal is dependent on effectiveness of the program and needs of the community. 72% of surveyed developmental agencies making social payments currently do so using cash while 28% use mobile money. Below is a summary of the technical cash working group cash activities in Bidibidi refugee settlement for select period.

Organisation	Purpose	Type of activity	Cycle	Start date	End date
Action Against Hunger	Cash vouchers for seeds	e-Voucher	One off	Feb-18	Apr-18
Save the Children	Cash for work	Conditional cash transfer	One off	Nov-17	Dec-17
Save the Children	Microbusiness cash injection	Conditional cash transfer	One off	Jan-18	Jan-18
Norwegian Refugee Council	Cash transfers to PSNs to access food and basic household needs	Emergency Cash transfers to PSNs	Quarterly	Jan-18	Mar-18
Norwegian Refugee Council	Cash grants to small scale business groups	Cash grants transfer to small scale business groups/IGAs	One-Off	Jan-17	Mar-18
DanChurchAid	Asset protection grant for farmers	Asset protection grant	Monthly	Jan-18	Dec-18
DanChurchAid	Cash voucher for Food	e-Voucher	Monthly	Jan-18	Dec-18
DanChurchAid	Income generating Activities	Startup capital	One off	Jan-18	Dec-18
DanChurchAid	Agric inputs support to farmers	Seed and Tool Vouchers	Seasonal		
DanChurchAid	Capacity Building of NGO staff on CTP	Trainings on CTP	One off	Jan-18	Feb-18
International Rescue Committee	Cash for Basic Needs and Business grants	Digital Cash transfer	Monthly	Jan-18	May-18
International Rescue Committee	Cash for Basic Needs	Digital Cash Transfer	Monthly	Mar-17	Jul-17
Mercy Corps	Cash voucher for ag-inputs	e-Voucher	One off	May-17	Nov-18
Mercy Corps	Cash voucher for tillage, ag-inputs, PHH materials	e-Voucher	One off	Jul-17	Apr-18
Samaritan's Purse International Relief	Micro Enterprise development	Cash for work	One off	Jun-17	Mar-18

Reasons Digital Solutions are Not Used



Development agencies who do not use digital solutions to make social payments are limited by the following reasons: network disruptions (25%) and lack of registration requirements (31%) for beneficiaries.

4.1 Products

The following table shows a summary of the main products offered by providers.

Product	Features	Provider
Airtime Purchase (Easy Load)	Purchase airtime for self or someone else	All
Sending or Receiving Money	Send or receive money	All
Bill & Utility Payments	Pay for utilities, fees, fuel etc.	All
ATM Banking	Withdraw Mobile Money from particular bank's ATM	All
Fees and taxes	Pay KCCA fees and taxes	MTN
MoKash	Loans and saving	MTN
MoMo Pay	Allows customers to pay merchants at no cost to customer but at a fee to the merchant.	MTN
Airtel Weza	Group wallet	Airtel

An example of a product that can be used by saving groups in Airtel Weza

4.2 Payments

		Payees			
		Person	Government	Business	Developmental Agencies
Payers	Development Bodies	D2P	D2G	D2B	D2D
	Government	G2P	G2G	G2B	G2D
	Business	B2P	B2G	B2B	B2D
	Persons	P2P	P2G	P2B	P2D

4.2.2 Government to Person Payments

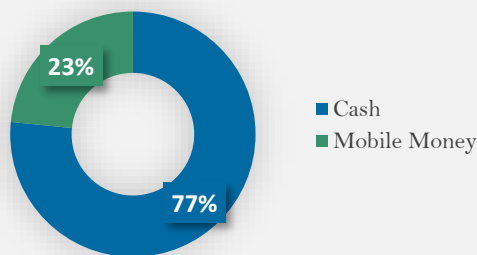
The Government of Uganda supported by Department for International Development and Irish Aid implements Senior Citizen Grant through the SAGE (Social Assistance through Grants for Empowerment) scheme. Under this scheme, beneficiaries receive UGX 50,000 every two months. Payments to beneficiaries are made through MTN Mobile Money.

4.2.3 Person to Business Payments

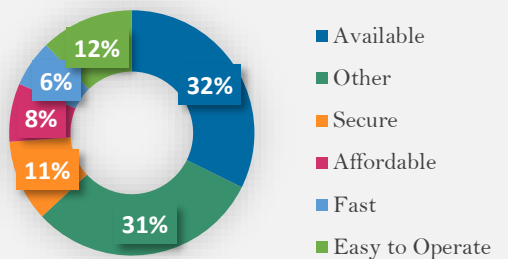
Most businesses prefer to receive cash payments for their goods or services. This is driven primarily by availability of cash.

77% of surveyed businesses prefer to be paid using cash.

Preferred Mode of Payment



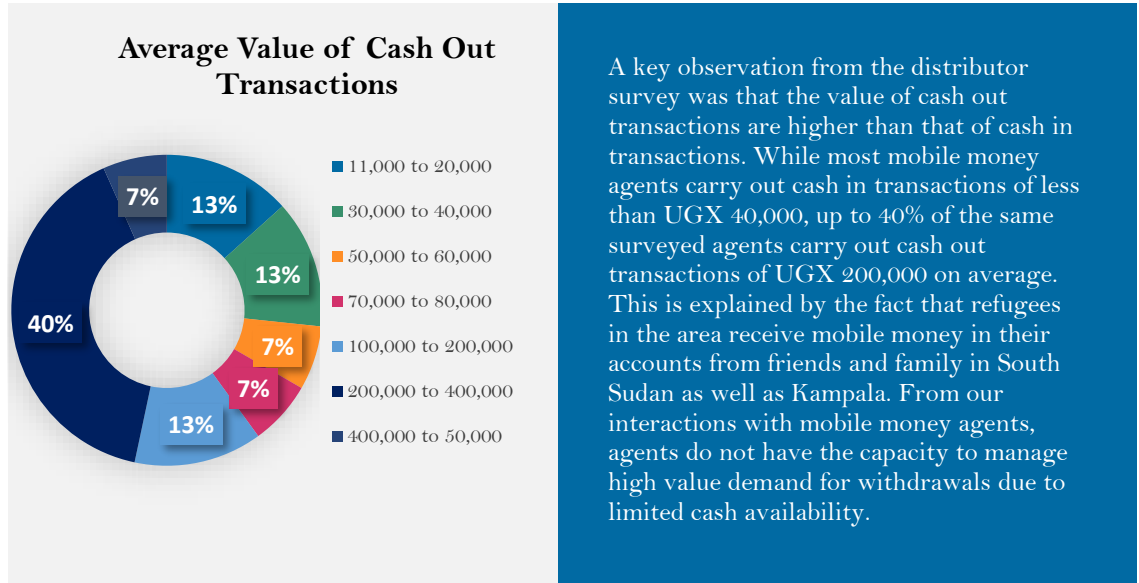
Reasons for Preferred Mode of Payment



- Option of bargaining is easier when cash payments are used.
- Convenience
- Supplier preference and trust in cash
- Cost effectiveness

Other reasons as to why businesses prefer to use cash for payments

4.2.4 Person to Person Payments: Cash out Transactions

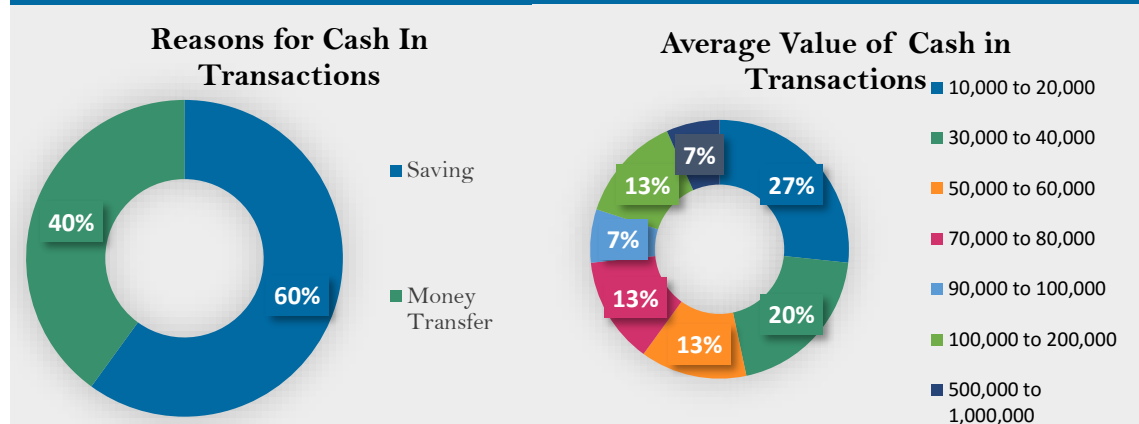


4.2.5 Person to Person Payments: Cash in Transactions

80% of surveyed agents conduct more cash out than cash in transactions.

Up to 80% of mobile money agents conduct more cash out transactions when compared to cash in transactions.

Cash in Transactions: Up to 60% of cash in transactions are for saving while 40% are for purposes of sending cash. Overall, the volumes of cash in transactions are low with none of the surveyed agents transacting more than UGX 200,000 on average. 27% of surveyed mobile money agents transact an average of UGX 10,000 – UGX 20, 000 and 20% transact an average of UGX 30,000 to UGX 40,000.



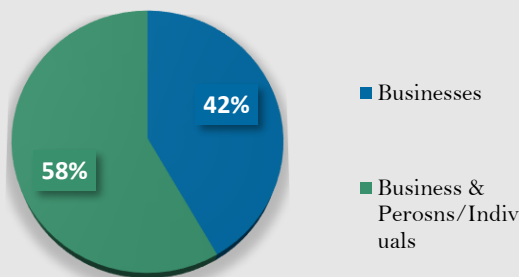
4.2.5.1 Use of Digital Solutions for Business Payments

Destination of Payments: Overall, businesses in Bidibidi are aware of mobile money services with 67% of surveyed business owners using mobile money services. The use of mobile money services is usually for business related activities or personal use. Overall, 58% of business owners use mobile money services for both business and personal reasons while 42% of business owners use mobile money exclusively for business reasons.

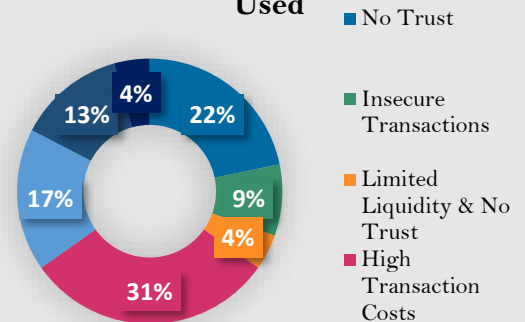
Reason Some Businesses do not use mobile money: Of the surveyed business owners who do not use mobile money and other digital financial services to make payments, 31% do not use digital solutions because of transaction costs, 17% are limited due to identification and registration issues while 4% allude their non-usage due to liquidity issues in the area.

31% of businesses do not use digital solutions because of high transaction costs.

Destination of Payments



Reasons Mobile Money Is not Used



Potential for Mobile money being used for digital payments: Overall, business owners would be able to use mobile money and digital solutions because for the most part, they do have mobile phones. From the survey, 89% of business owners asserted that they do have mobile phones and a 75% are registered to both MTN and Airtel.

Closely allied to the ongoing discussion on possibility of digitalizing business-based transactions, it can be asserted that 79% of business owners do trust mobile money and E-wallet solutions.

A minority 19% of business owners do not trust digital financial services while 2% trust though not entirely. Some of the key reasons for this lack of trust include network disruptions, limited mobile money points, mobile money being expensive for small sums, lack of knowledge about mobile money and sim card issues.

4.2.5.3 Business Profiling

Business Ownership by gender: Within the Bidibidi Refugee settlement, 68% of business are owned by males and 85% of businesses are young stage i.e. they have been in operation for about 0 to 2years.

Business Type: Additionally, there is a diverse range of businesses operating within the camp and host community. While 13% of business are market vendors, the biggest percentage, i.e. 79% are diverse.

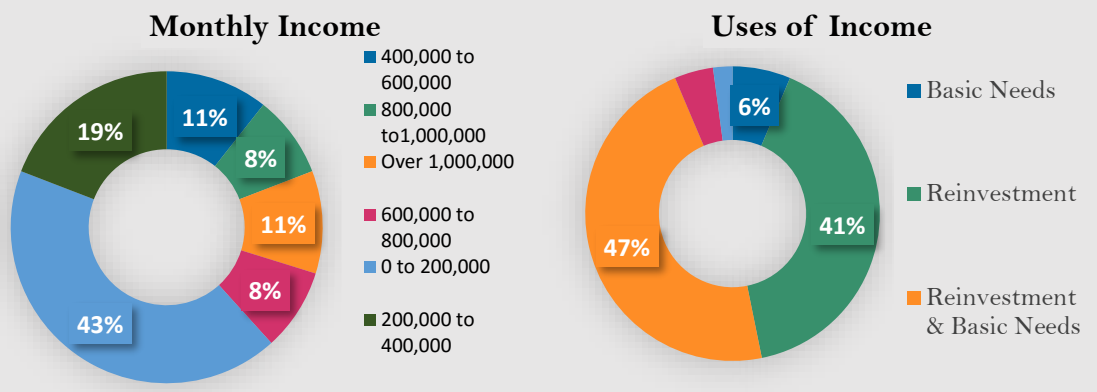
- Grains dealer
- Shopkeeper
- Drug shop
- Clothes vendor
- Veterinary shop
- Grain milling
- Charcoal trader
- Wholesale shop
- Grain miller
- Grinding mill
- Drug shop
- Shop keeper
- Wholesalers
- Bar business
- Variety supplies shop
- Soap making venture
- Bar and soap business
- Restaurant

Due to the financial status of refugees, up to 87% of businesses are financed by loans. Similarly, it is not easy to get financing for businesses with up to 59% of surveyed business owners saying it is hard to get a loan to finance a business. An additional 19% find it very hard and a further 22% find it fairly easy.

Furthermore, most of the businesses operating in Bidibidi are relatively small with 43% of businesses in the area generating monthly income of less than UGX 200,000 and 19% of businesses generating between UGX 200,000 to 400,000. This means a combined 62% of businesses earn UGX 400, 000 or less a month.

The use of income earned is mostly distributed between reinvestment and personal needs. The level of reinvestment is mostly high with 41% of business owners reinvesting their income back into the business. An additional 47% of business owners use their income for satisfying basic needs and reinvestments

43% of the business community earn income of less than Ugx 200,000.





CHAPTER 5: INFRASTRUCTURE



As identified by UNCDF's MM4P Programme, Infrastructure is a key pillar of a Digital Financial Services ecosystem. This chapter consists of an analysis of DFS infrastructure within Bidibidi Refugee Settlement and Host Community. It analyses network coverage, mobile money infrastructure and mobility infrastructure.



DFS INFRASTRUCTURE IN BIDIDBIDI REFUGEE SETTLEMENT AND HOST COMMUNITY

ANALYSIS OF EXISTING INFRASTRUCTURE



Africell has set up another mobile tower in Imvepi, a location within proximity to zone 5



Airtel has about seven permanent sites which provide connectivity to the settlement



MTN was able to replace a mobile tower in Bidibidi with a permanent tower to provide mobile phone connectivity. MTN currently has two permanent sites providing connectivity to the settlement



3G network can be accessed within the settlement



Last mile delivery of float and cash to agent locations is made hard and costly due to the poor road network

KEY STATISTICAL HIGHLIGHTS



28% of surveyed mobile money agents quoted network outages as the biggest challenge faced



53% of mobile money agents do not face any challenges when navigating through the mobile money infrastructure



33% of agents find it hard to understand mobile money notifications. These are sent by the MNO in English; a language most rural people can't read

DEVELOPMENTS NEEDED TO SUPPORT DFS INFRASTRUCTURE



There is need for more network towers to be put up in zone five. This is the largest zone most recent one to be set up



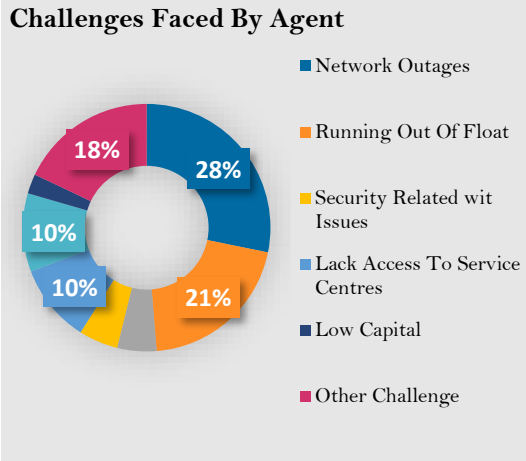
There is need to improve the road network in order to enhance last mile delivery of cash and float to agent locations



There is need for grid connections to encourage spike in economic activities and improvement in livelihood

28% of surveyed mobile money agents quoted network outages as the biggest challenge faced.

5.1 Network Coverage



Instabilities in the mobile network is one of the biggest challenges faced by mobile money agents. Most often at times, a customer will go to a mobile money agent to conduct a transaction only to be told that there is no network. As can be seen in the chart on the left, biggest challenge faced by 28% of mobile money agents is network related.

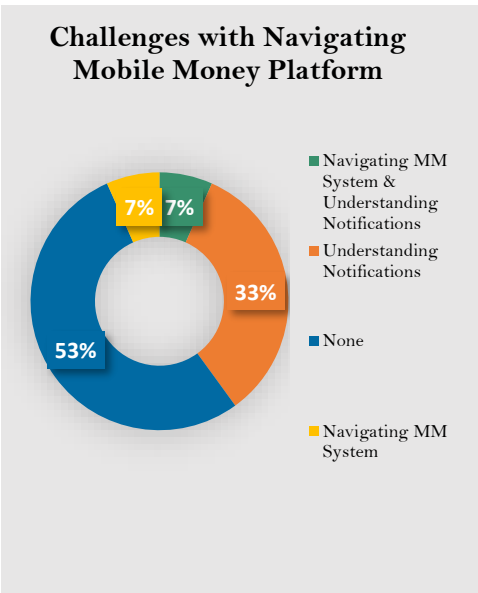
In the event there is no mobile money network the common practice is for agents to close their shop and go home for the day.

Several mobile network operators have taken the initiative to improve network connectivity in and around Bidibidi. According to Relief Web, MTN was able to replace a mobile tower in Bidibidi with a permanent tower to provide mobile phone connectivity. This has gone a long way in improving the MTN network connection in the area. According to the survey on which this document is based, MTN is currently the most common network used in the area.

Closely allied to the above discussion, Africell has set up another mobile tower in Imvepi, a location within proximity to zone 5. This has similarly played a big role in boosting phone reception. Though Africell money is hardly present in the area, several people use Africell for call services.

33% of agents find it hard to understand mobile money notifications. These are sent by the MNO in English; a language most rural people can't read.

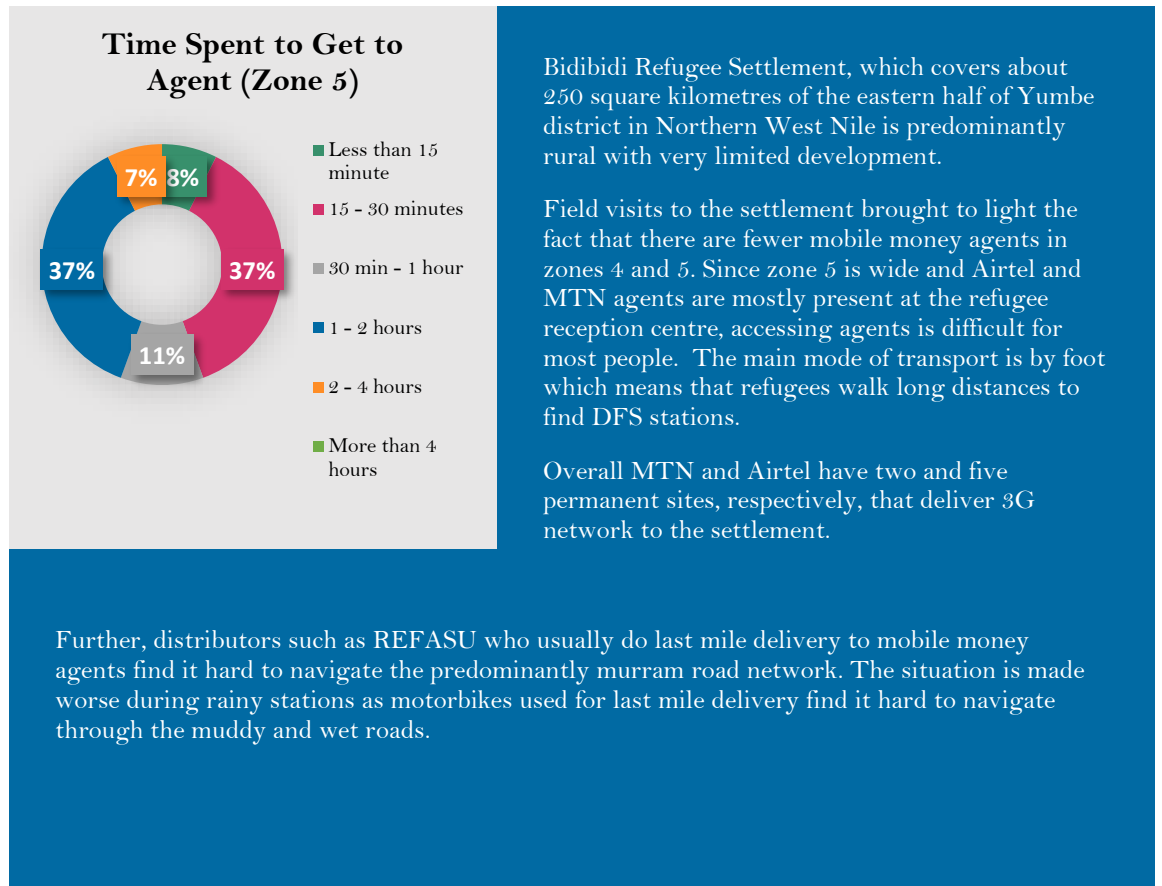
5.2 Mobile Money Infrastructure



Overall, agents can offer day to day mobile money services such as purchase of easy load for a customer, cash in and cash out transactions. A few of the agents, i.e. 13% said they found it hard to make bill payments on behalf of customers

Furthermore, it can be said that the mobile money platform is mostly easy to use. Based on the data, mobile money agents are mostly comfortable with interacting with the mobile money platform with up to 53% of surveyed agents saying they do not face any technology specific challenges. The key challenge faced by up to 33% of agents is understanding notifications sent by the mobile network provider.

5.3 Mobility Infrastructure





CHAPTER 6: PROVIDERS

As identified by UNCDF's MM4P Programme, Providers is a key pillar of a Digital Financial Services ecosystem. This chapter consists of providers operating within Bidibidi Refugee Settlement and Host Community. Focus is put on analysis of existing business models of providers, challenges and barriers and nature of partnerships with banks, if any.





MOBILE MONEY PROVIDERS IN BIDIBIDI REFUGEE SETTLEMENT AND HOST COMMUNITY

MAIN PROVIDERS



30%

Of surveyed customers
use Airtel only



45%

Of Surveyed customers
use MTN only



23%

Of surveyed customers use
a combination of MTN &
Airtel

PROVIDER BUSINESS MODELS



MTN extends its services
through dealers and master
agents like Nilecom and
Chims



Nilecom employs agents
who it pays a salary.
Agent commissions are
paid directly to Nilecom



Airtel extends its services
through the use REFASU, a
regional distributor for West
Nile region



REFASU earns revenues
from servicing Airtel
money agents

BARRIERS AND CHALLENGES



Small customer base



Language barrier



Poor road network



Poor mobile network

CAPACITY BUILDING NEEDS

Setting up localized re-
balancing centres to
enhance agent liquidity
management

Expanding agent network
especially in zone 5 to enhance
customer accessibility to
mobile money services

Credit services to agents to
support working capital needs
as well as increase operational
capacity

MNOs operating in Bidibidi extend their services through regional distributors, dealers and master agents.

6.1 Provider Business Model

Revenue streams for mobile network providers in the area include mobile money services, airtime sales, data, voice, top-ups, and messaging services. Key drivers of revenue for mobile money services is growth in active customers and growth in transactions per customer.

To provide mobile money services, regional distributors and dealers act as intermediaries between the MNO and customers, there are different agent models that a given MNO can adopt in its mobile money service: The Matric Hierarchy Model involves the MNO directly appointing transaction agents as well as appointing master agents to assist with the process of agent recruitment. The master agent model on the other hand involves the MNO selecting and training a network of master agents who in turn oversee recruitment of transaction agents.

As part of their core distribution strategy, Airtel creates geographical territories (East, Central, North and West) for effective service delivery. REFASU handles distribution to West Nile Region acting in a similar manner to master agent handling marketing, float management and recruitment & training of agents.

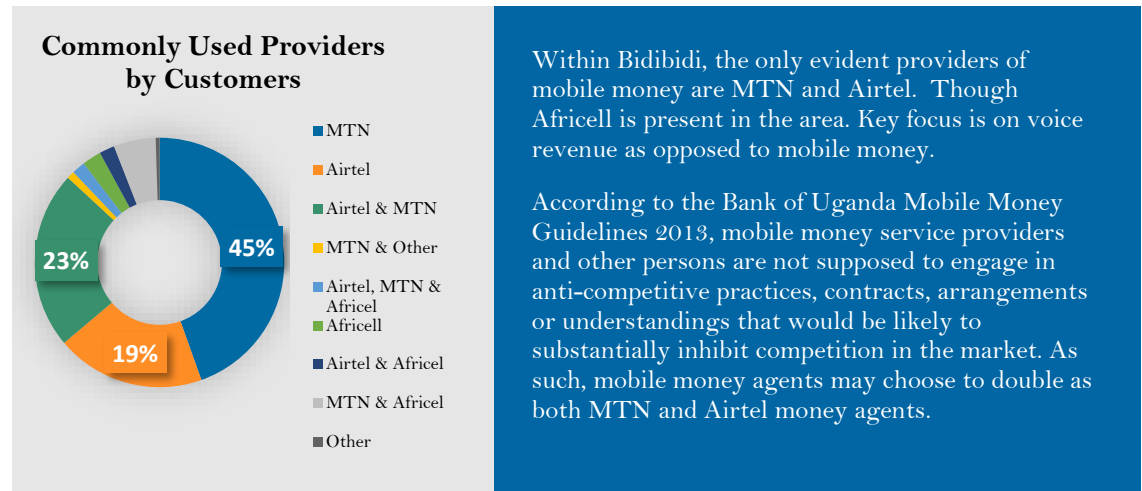
MTN has a similar strategy involving the use of dealers and master agents such as Nilecom to handle service delivery in the area.

Architect	Value Chain Element				Product
	Deposit Holder	E -money issuer	Payment platform	Distributor/ Dealer	
MTN	Stanbic Bank	Banks in nearby towns and dealers such as Nilecom and Chims	Mobile device	Nilecom and Chims	MTN Mobile Money
Airtel	REFASU agents			REFASU	Airtel Money

For a distributor such as REFASU, revenue streams is twofold, the first is a percentage received on the cash and float value given out. The second is a percentage received from servicing agents with cash and float. For example, if REFASU serviced at least 80% of the agents in Yumbe, they earn an upper tier of 3% of the commission made by agents. Nilecom on the other hand has its own network of agents, agent commissions are paid directly to Nilecom and agents receive a salary.

6.2 Main Providers

MTN, Airtel and Africell are the predominant providers in the area though Africell money hardly has any presence.



6.3 Barriers and Challenges

Float and liquidity management presents a challenge due to distance from re-balancing points and high transport costs.

- Offering digital financial services in a Bidibidi presents a challenge due to the remote and rural nature of the area.
- Providers operating in the region find it hard to break even because of the limited revenues and high operational costs. The active customer base is small, this issue is compounded by low volume of transactions.
- The population has low literacy levels which hinders adoption and use of mobile money. Additionally, mobile phone penetration is still relatively low in this area due to low incomes. This is also exacerbated by language barrier issues.
- Float and liquidity management presents a challenge due to distance from re-balancing points and high transport costs. For example, REFASU agents personally deliver float and cash to agent locations an average of two times a day for every agent. This is very much of a challenge because agents are in very remote areas and most often at times sparsely populated areas. The issue is exacerbated during the wet season when roads are almost impassable. The option of providing float on credit is not currently pursued due to mistrust between REFASU and agents. This is because of the risk of agents not paying for float are high.
- Providers are limited by network & technical difficulties.

Challenges and barriers faced by mobile money providers in Bidibidi



CHAPTER 7: POLICY & REGULATION



As identified by UNCDF's MM4P Programme, Policy & Regulation is a key pillar of a Digital Financial Services ecosystem. This chapter an insight into the key players in Uganda's DFS Ecosystem, the roles they play and the underlying regulation governing mobile money transactions in the country.

CASE STUDY: POLICY & REGULATION AND THE DFS ECOYSTEM IN BIDIBIDI

Overview of The Current Regulatory Framework Governing Mobile Money in Uganda

Governing Regulatory Framework: Bank of Uganda (BoU) has set up regulatory guidelines to aid operation of the Mobile Money and Mobile Banking network under the Bank of Uganda Mobile Money Guidelines, 2013. It is important to note that these are just guidelines and they are not legally binding. DFS will be regulated under the National Payments Act which is still a Bill.

However, there are recent developments in the regulatory framework, according to a source at BoU, The National Payments Bill has gone through the policy stage at Cabinet and has been sent to the First Parliamentary Council. There is still some time before it hits the floor of parliament for discussion. Mobile Money Guidelines will form the regulations that will follow the Bill once it becomes an Act. The regulations will be prepared by BoU.

Recent Developments in KYC: Know Your Customer regulations present a challenge in increasing customer adoption of mobile money services. For one to be able to register for mobile money, they have to use a National ID card, the registration status of the user is verified by the MNO through a user's National Identification Number (NIN). In the past, refugees found it hard to register as mobile money agents because of stringent KYCs. Currently, a refugee card is sufficient to ensure registration though from field interactions, not all refugees have refugee cards. However, OPM is currently undertaking a nationwide verification process that is scheduled to end in September 2018.

Shift from Scratch Cards to Top Ups for Airtime: UCC is pushing for a shift from using airtime scratch cards to airtime being purchased through a mobile money account. If the move is proven to be successful, there is bound to be an increase in adoption and use of mobile money.

Tax on Mobile Money Transactions: According to the tax proposals in the Excise Duty (Amendment) Act 2018, there will be a tax charge of 1% on the transaction value of mobile money transactions i.e. cash out, payments and cash in transactions. This proposed tax applies every time someone carries out a transaction using mobile money. This proposed tax is likely to negatively impact on mobile money usage as it will push transaction charges up.

Development agencies disbursing cash through mobile money will do so at a higher cost. Similarly, beneficiaries will cash out their money at a higher cost.

Capacity Building Needed at The Regulatory Level to Support the DFS Ecosystem

- There are no established requirements regarding utilizing systems capable of being interoperable with other payment systems in the country and internationally. This makes money transfers harder for refugees especially to and from relatives in country of origin. There is need for the national payments bill to push for interoperability.
- There is need for a national payments policy that puts emphasis on digital financial services literacy.
- There is need to push for MNOs to customize the mobile money platform in all local languages. This would ensure easier interaction for mostly rural agents.
- There is need to push for greater collaborations between development agencies and MNOs for interventions to be delivered digitally.
- There is need to push for experience sharing of lessons learnt from other refugee camps to development agencies.

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Authors

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Yvonne Kaitesi, Senior Investment Analyst, Asigma Advisory

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About UNCDF and MM4P

The UN Capital Development Fund (UNCDF) makes public and private finance work for the poor in the world's 47 least developed countries (LDCs). With its capital mandate and instruments, UNCDF offers "last mile" finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development.

MM4P (Mobile Money for the Poor) is working intently with banks, mobile network operators, regulators and users of DFS in challenging markets to help reach millions of additional customers who are currently financially excluded. In doing so, MM4P hopes to prove that these services can be provided responsibly, at a reasonable cost, by sustainable institutions in a well-regulated environment. MM4P uses a theory of change approach to DFS development, which focuses on making shifts between phases of market development, moving from Inception to Start-Up to Expansion and eventually to a mature market known as Consolidation. Through each phase, MM4P considers the entire DFS ecosystem. This means MM4P plans activities at the levels of Policy & Regulation, Infrastructure, Providers, Distribution, High Volume and Customers to improve market conditions and facilitate shifts.

About DCA

DanChurchAid (DCA) is one of the about 25 humanitarian organisations that assist the UN system in Bidibidi. DCA works closely with partner organisations and government structures at different levels, while also doing direct/self-implementation in our humanitarian response to the South Sudanese refugee influx.

About Asigma Advisory

Asigma Advisory is a management and financial advisory firm with a niche in using data analytics to offer business strategy insights. Data is a core pillar of work at Asigma. Asigma develops locally adaptable business strategies for organisations by leveraging their operational experience, and expertise in data analytics and business intelligence integration.





DCA
Human Rights House
John Kiyingi Road, Nsambya
PO Box 11027
Kampala, Uganda
Phone: +256 392 265 594



UNCDF
4 Ngabo Rd,
P.O Box 7184,
Kampala - Uganda.
Phone: +256 417 112 100