School fee payments, and the opportunity to increase digital savings uptake in Zambia
Objective

To provide low-income users, particularly women, the opportunity to fulfill a family’s desire to educate their children, by:

1. Offering low-cost, easy to access, and use digital school fee payment solutions.
2. Encouraging accessible and affordable digital savings.
Our research methodology


Primary research on the demand side: Understanding of user needs, wants and potential solution attributes.

Primary research on the supply side: Interviews to understand current offerings, potential challenges and opportunities.

<table>
<thead>
<tr>
<th>Supply</th>
<th>Demand</th>
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<tbody>
<tr>
<td>25 + interviews with banks, mobile network and OTC operators, back end aggregators, payment solution providers and private sector companies with digital finance projects.</td>
<td>8 savings group interviews covering 126 respondents across Northern and Copperbelt Provinces.</td>
</tr>
<tr>
<td>9 in-depth interviews with mobile money, over the counter, and banking agents.</td>
<td>4 in-depth interviews with individual savings group members.</td>
</tr>
<tr>
<td>7 in-depth interviews with Private Service Providers.</td>
<td>7 in-depth interviews with schools in both Copperbelt and Northern Provinces.</td>
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## What to expect?

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>Overview of Zambia’s financial inclusion landscape</td>
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<td>2.</td>
<td>Hypothesis and scope of research</td>
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<tr>
<td>3.</td>
<td>Insights from the demand side: the payer and the payee</td>
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<td>4.</td>
<td>Landscaping of the supply side</td>
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<td>5.</td>
<td>Key Takeaways</td>
</tr>
<tr>
<td>6.</td>
<td>Potential Solutions – Blue Sky Thinking</td>
</tr>
</tbody>
</table>
Zambia’s financial inclusion landscape
Zambia’s **formal** financial sector does not include majority Zambians, yet.

<table>
<thead>
<tr>
<th>Addressable Market</th>
<th>Target Market</th>
<th>Financially Included adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Million</td>
<td>8.7 Million</td>
<td>5.2 Million</td>
</tr>
</tbody>
</table>

Population of Zambia: 16 Million
Adult Population of Zambia: 8.7 Million

- **Formal** includes all entities supervised by Bank of Zambia – banks, e-money issuers, deposit taking MFIs, and payment service providers.
- **Informal**: include entities not formally supervised by Bank of Zambia e.g. savings and lending groups, informal MFIs, etc.

![Diagram](image)

- Formal: 3.32 Million (38.2%)
- Informal: 1.83 Million (21.1%)
Non-bank formal, notably mobile led services have grown over the past 6 years

Graph reads: % of adults that use a certain financial service or are excluded

Non bank formal includes: money transfer operators, mobile money, MFIs, etc. Source: Finscope 2015

However, ownership of Digital financial accounts and usage of digital services has a long way to go in Zambia.

Mobile money usage:
- 11% have their own mobile money account
- 4% use mobile money, unregistered
- 14% have EVER used mobile money
- 53% are aware of mobile money
- 61% own a phone

Source: Finscope 2015 and MM4P
Women and urban dwellers dominate the growing informal financial services segment

Both sets of data points seem to suggest that current suite of formal financial products don’t entirely address the needs of Zambian adults.
Understanding the financial needs of Zambian adults

Daily Income

- $5.7 Average adult Income
- $2.1 Median adult Income

Daily Expenses

1. Consumption (food and clothing)
2. School Fees
3. Rent

Zambian adults regard children’s education as the most costly event of their lives.

- 61% Zambian adults save as cash-flow management to plan for school fee payments.
- 33% Rely on gifts from friends and family.
- 10% Borrow from friends and family.
- 9.1%
So what?

There seems to be a need for financial products that help smooth the financial lives of Zambian adults, especially around school related expenses.

Savings products that not only encourage savings for school related expenses, but also enable payments could be a sticky value proposition for greater adoption of Digital Financial Services (DFS).
We then decided to test that hypotheses

3 Questions

Who to target first?
And why?
What are we testing?
Hypotheses testing: The Who, Why, and What

- According to Finscope 2015, adults that are formally included are more likely to be male, above the poverty line and urban.
- If we strictly look at only formal financial inclusion, then 60% of the Zambian market is untapped.
- Women are even less likely to be formally included.

Women comprise of 51% of the adult Zambian population. They not only save but are dominant users of savings groups that help them manage cash-flow.
Hypotheses testing: The Why, Who, and What

Adults in informal savings groups, particularly women have built a history of savings and credit. Compared to the financially excluded, they are more primed to adopt formal financial services that speak to their daily lives.

Therefore, we began our hypotheses testing with CRS’ savings group members, 84% of who are women.
Hypotheses testing: The Why, Who, and What

Hypothesis test: Our demand side research examined 2 products – Savings and School fee payments

| Savings |
|-----------------|-----------------|-----------------|-----------------|
| Motivation      | Attributes      | Volumes and     |
| Why savings     | What do they    | Values of       |
| groups?         | like about      | savings         |
| Savings goals:  | savings groups?|                 |
| needs and       | Are these       |                 |
| aspirations.    | transferrable?  |                 |

- **Motivation**
  - Why savings groups?
  - Savings goals: needs and aspirations.

- **Attributes**
  - What do they like about savings groups?
  - Are these transferrable?

- **Volumes and Values of savings**
  - Group Economics.
  - Volume: How often do people save, how much they saved, and over what time-period.
  - Credit: Savings linked credit attributes

**Digital Readiness**

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<td>Zambian households have access to phones (ZICTA-2015).</td>
</tr>
<tr>
<td>Adult Zambians own a phone.</td>
</tr>
<tr>
<td>Want to learn new technology.</td>
</tr>
<tr>
<td>Do not want to carry cash.</td>
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**Data Source:** Finscope 2015

<table>
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<th>Percentage</th>
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<td>64.5%</td>
</tr>
<tr>
<td>61%</td>
</tr>
<tr>
<td>86%</td>
</tr>
<tr>
<td>47%</td>
</tr>
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- 64.5% Zambian households have access to phones (ZICTA-2015).
- 61% Adult Zambians own a phone.
- 86% Want to learn new technology.
- 47% Do not want to carry cash.

- Want to learn new technology.
- How many savings members own or have access to phones?
- Willingness to make digital payments and pay for it.

- 64.5% Zambian households have access to phones (ZICTA-2015).
- 61% Adult Zambians own a phone.
- 86% Want to learn new technology.
- 47% Do not want to carry cash.
Hypotheses testing: The Why, Who, and What (contd.)

Payments (1/2): We examined school related payments through the 4 components of a digital payment

<table>
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<tr>
<th>Store of Value</th>
<th>Payer</th>
<th>Digital channel</th>
<th>Payee-School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One who pays</td>
<td>The medium through which money is digitally transferred.</td>
<td>One who accepts a payment</td>
</tr>
</tbody>
</table>

Transaction is initiated using customers digital store of value i.e. mobile wallet or card.

Transaction is received into payee’s store of value i.e. bank a/c or mobile wallet using a digital channel.

An ideal definition of digital school fee payments.
Hypotheses testing: The Why, Who, and What (contd.)

Payments (2/2): The typical ingredients necessary to ensure a seamless digital school related payment.

- High quality agent penetration.
- Well stocked with float and cash.
- Ability to facilitate school related payments.

**Agent**

- Customer acquisition
- Registration
- Account Activation
- Deposits & Withdrawals at agent
- Real time notifications of all transactions

**Payer**

- Remote payment
- Payment Instrument
- Channel / USSD access.
- UI / UX that is easy to follow.

**School**

- School acquisition
- Student payment identification system.
- Automated real time or end of day reconciliation system.
- Liquidation from wallet to bank account (depending on how school fees are collected).

**FSP**

- Financial Service Providers (FSPs) that collect payments.

**Backend Integrator**

- Typically connects to the backend of a FSP.
- Either directly connects or has a platform that allows payees like schools to upload payer information.
- Validates payer information, amount and does transaction processing.
- Provides notifications, end of day reconciliation, etc.
Key Insights from our demand side study of savings groups

Payer: Savings & School fee payments
Payee: Schools
Current suite of formal financial products do not speak to women in savings groups

Why savings groups?

"The reason why I chose to join the group and not the bank is because there are no balance reductions and I get interest at the end of the cycle"

"We realized that the group was the only way to help ourselves and it has offered us an opportunity to save"

"I joined SILC to empower myself"

"I want to expand my business. I do hardware and rear chickens"

"My priority is paying my school fee balance and then I will reinvest the rest in my business"

100% of group members are saving or borrowing for specific short term and long term goals.

Data Source: Consumer Behaviors in Zambia, MM4P

Data Source: Field Interviews (not representative of all SILC Groups)
Product features that groups appreciate can be translated to a formal financial product

- Rules of engagement are clear (min-max deposits; interest rate payments; repayment schedule etc.).
- No unobvious charges or unexpected payments.

- Proximity.
  - No barrier to entry.
  - Faster turn around of credit and emergency funds.

- 429 Private Service Providers, financially certified, providing financial management and accounting services to groups.
  - Administrative fee per meeting.

- Transparency
  - The floor of savings value ranges from ZMW 1-5 encouraging any savings amount.

- Affordability
  - Affordable

- Accessibility
  - Proximity.
  - No barrier to entry.
  - Faster turn around of credit and emergency funds.

- Simplicity
  - Savings linked to credit facility.

- Support
  - 429 Private Service Providers, financially certified, providing financial management and accounting services to groups.
  - Administrative fee per meeting.

Data Source: Field Interviews (not representative of all SILC Groups)
Accumulated savings portfolio of current active groups - $5.2 MN

180,919 Savings Group Members

**Savings Fund**

Higher value fund, with a range of rates, used for accumulating savings and providing credit.

- ZMW 1 - 500
  - Per member per week
  - LOAN with 10-15% INTEREST

**Emergency Fund**

Lower value fund, with flat rates, used for emergency grants.

- ZMW 1 - 10
  - Per member per week
  - GRANT or INTEREST
  - FREE LOAN
  - PSP SERVICE
  - PAYMENT

**Dividends**

Dividends, including individual savings and earnings on interest, are paid out annually, then a new savings cycle begins.

Data Source: Field Interviews (not representative of all SILC groups)

Data Source: CRS Zambia SILC Program Indicators

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Digital readiness and compartmentalization of usage

<table>
<thead>
<tr>
<th>Copperbelt</th>
<th>Vs.</th>
<th>Northern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>92%</strong></td>
<td></td>
<td><strong>64%</strong></td>
</tr>
<tr>
<td>Of all members own their own phone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>51%</strong></td>
<td></td>
<td><strong>38%</strong></td>
</tr>
<tr>
<td>Of those who own phones have a mobile money account.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>51%</strong></td>
<td></td>
<td><strong>8%</strong></td>
</tr>
<tr>
<td>Of all members have a bank account.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"I can save in it"

"I can withdraw money any day, including weekends"

"If you don’t have a phone, it’s more difficult to have an account"

"If you don’t have people to help you, then you can’t understand (mobile money), especially if you are poor"

Usage of mobile money predominantly for payments.

Frequency of usage ranges from weekly to monthly.

Informal and formal financial services are co-existing.

Users assign a specific purpose to each channel.

Data Source: All percentages sourced from field interviews (not nationally representative)

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Current school fee payment processes are determined by the school and are cumbersome for guardians.

Example of a Current Secondary School Fee Payment Process

- **Payer**
  - Cash Transaction
  - Bank

- **Payee**
  - Transaction Confirmation
  - School

82% of savings group members have school going children.

The average secondary school fee payment per term is ZMW 338. The range of travel costs to the bank is ZMW 4 – 40, which means payers are paying between 1 and 12% of the fee to make the transaction.

There is a willingness to pay for the convenience of digital services.

*Data Source: Field Interviews (not representative of all SILC groups)*
Infrastructural barriers to digital payment adoption

**Agent Exclusivity**

91%

Of all Zambian agents are exclusive.

100% of agents interviewed were exclusive.

Although 6 out of 8 groups had at least 1 agent a 5 minute walk away, agent exclusivity left customers with a lack of provider choice.

**Agent Penetration**

Mobile Money agents per 100,000 Zambian adults.

However, this penetration is not uniform. There are agent clusters.

For example, in Luanshya and Mungwi, SILC groups would have to incur travel cost and time to get to the closest agents. Digital financial inclusion is an expensive value proposition.

Data Source: Helix Institute

# of Financial Access Points by Ward (including mobile agents)

Data Source: The Mix, 2016
Infrastructural barriers to digital payment adoption

Liquidity Management

“sometimes they do not have cash”

“agents are often closed during the weekend and rarely have cash”

-Respondents of savings groups when asked about the service their closest agent offered.

Network Coverage

78%

According to ITU’s 2015 Statistics, only 78% of Zambia’s population is covered by mobile network.

Data Source: Helix Institute

Data Source: The Mix, 2016

Data Source: ITU’s 2015 Statistics

Data Source: http://onlinesystems.zicta.zm:8585/statsfinal/ITU%20Indicators.html
Digital payments can solve a real pain point for schools

The Current Secondary School Process

“"It is May. Parents are going to deposit in the bank, but they are not going to give the accountant the deposit slip immediately. Then we do reconciliation, but realize that there is more money in the bank than can be accounted for. Then matching that to parents who have paid becomes a nightmare”

Accounts Assistant, Chimwemwe Secondary School

4 out of 6 schools use an entirely manual system for recording and reconciling payments.
Schools understand the benefits of digitization, but are not ready for it

No schools had considered using a digital school fee payment system and payments via banking agents are actively discouraged.

More price sensitive than savings group members.

Infrastructural barriers to accepting digital payments.

The school, who determines how and where payments are made, is less ready than the payer.
Landscaping the supply side

How is it structured?
What solutions already exist?
Zambia’s Digital Financial Services market – At a glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Category of FSP</th>
<th>Current Services Offered</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Savings</td>
<td>Domestic remittances</td>
</tr>
<tr>
<td>1.</td>
<td>Commercial Bank</td>
<td>Yes</td>
<td>Yes (direct deposits)</td>
</tr>
<tr>
<td>2.</td>
<td>Mobile Money</td>
<td>Store of value, not a special savings product</td>
<td>Yes</td>
</tr>
<tr>
<td>3.</td>
<td>Over-The-Counter providers including retailers</td>
<td>Mostly Not except for Zooná’s Sunga. Retailers like Shoprite that offer OTC transfers are not licensed.</td>
<td>Yes</td>
</tr>
<tr>
<td>4.</td>
<td>MFIs (Deposit taking)</td>
<td>Yes</td>
<td>Direct deposits-Yes</td>
</tr>
</tbody>
</table>
Zambia’s DFS market (contd..)-Payment Aggregators

- Backend Integration with 10 Banks in Zambia.
- Backend Integration with 2 MNOs.
- Service offerings: Payment facilitation for utility payments, cable TV payments, Bank to wallet Push-Pull.
- **School fee payments**: Currently have an online payment solution with the University of Lusaka.
- They also have the ability to offer an **offline solution**.

Cellulant charges the payer (parent) a flat fee of 10 kwacha.

- Backend Integration with 13 Banks in Zambia.
- Working agreement with the 2 large MNOs.
- Service offerings: Enabling big Person-to-Government payments, particularly Zambia Revenue Authority (ZRA) payments.
- **School fee payments**: Currently have an full school management solution and are working towards a school fee payment component.
- The platform supports primary, secondary and tertiary education institutions.
- **Currently have on-boarded around 6-7 schools.**
Digitizing school related payments solves a real pain point – both for guardians and schools.

There is a willingness to pay a convenience fee for digital school related payments.

Agent exclusivity lowers consumer choice of payment method.

School acquisition and onboarding is crucial.

Lump sum payments are hard for most parents. A lay-away or locked savings option could provide real value.

Lack of financial access points i.e. agent density is a real challenge.

Schools determine how and where payments are made are unprepared to accept digital payments.

Digital school payment solutions exist, but are yet to see mass market uptake.

Guardians are looking at affordability, convenience and proximity of payment points.
Potential Solutions - Blue Sky

An OTC school fee payment option: *Think money transfer, but for school payments*

An end-to-end digital school fee payment: *A cashless transaction*
Using an aggregator’s online or offline school platform the school generates a unique Payment Reference Number for each child of that school.

Parent receives the reference number either on paper or via SMS.

Parent travels or walks to closest agent.

Pays cash using the unique reference number.

An (non-exclusive) agent accepts cash, conducts a pay bill transaction. Parent gets an electronic receipt and so does the school.

Agent wallet is debited and aggregator / MNO collection account is credited.

End of day or T+1 collections are pushed to the school’s bank account.

School is able to log in to the aggregator platform and view amount collected – an automated reconciliation process.

Could even offer parents a lay-away option.
The OTC solution: **Sender** pays (one potential revenue model)

- **Sender / Parent** pays for convenience model.
- The convenience fee is used to compensate agent and agent operators i.e. bank, MNO, OTC and maybe even partially compensate the aggregator.
- **Banks** earn from corporate accounts like a school’s account.
- **School** pays the aggregator a small annual fee for hosting the solution and other admin expenses.

### Gains for each party

<table>
<thead>
<tr>
<th>Payer</th>
<th>Agent</th>
<th>Agent Operator</th>
<th>Backend Aggregator</th>
<th>Banks</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience. Reduces the time and cost factor to just the nearest financial access point.</td>
<td>Commission</td>
<td>Revenue via commission split</td>
<td>Commission</td>
<td>Cost-savings via unclogged banking halls and school payment handling</td>
<td>Convenience, automated reconciliation</td>
</tr>
</tbody>
</table>
The OTC solution: **Receiver pays** (another potential revenue model)

Sender / Parent does not pay for making a school fee payment.  

The agent is compensated by the payment solution provider or the channel provider for school fee cash-ins.  

Banks earn from corporate accounts like a school’s account.  

School pays the aggregator a % of the value of payments facilitated.  

The % earned from the school is split between the channel provider, and aggregator.

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The OTC school fee payment solution (contd..)- Positives and areas for further discussion

**Positives:**

- Solves an immediate pain-point, and has no barrier to adoption.

**Areas for further discussion:**

- This approach is limited in increasing digital account adoption and consequently greater formal financial inclusion.
- Does not necessarily create a data trail on the individual payments history making it harder to offer additional financial products.
- Makes it difficult for new comers / 3rd parties to offer competitive and tailored financial solutions based on a users digital transaction history.
- Scalability of this solution will hinge at the very least on agent footprint, liquidity management, and schools on-boarded.
The digital school fee payment solution

Frontend process.

School

Using an aggregator’s online or offline school platform the school generates a unique Payment Reference Number for each child of that school.

Parent receives the reference number either on paper or via SMS.

Parent dials a USSD code, uses an app, or internet banking to initiate a digital transaction from a wallet or bank account.

Parent gets an electronic notification and so does the school.

Cash-in to wallet at agent.

Backend process.

Amount is debited from customer account.

Amount is credit to school bank account.

School is able to log in to the aggregator platform and view amount collected – an automated reconciliation process. Could even offer parents a lay-away option.

Cash-in to wallet at agent.
Digital payment: **Sender** pays (one potential revenue model)

- **Sender / Parent** pays for transfer.
- **The fee is split between the FSP and the backend aggregator.**
- **Banks earn from corporate accounts like a school’s account.**
- **School pays the aggregator a small annual fee for hosting the solution and other admin expenses.**

### Gains for each party

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Digital Payment: **Receiver** pays (another potential revenue model)

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<tr>
<td>Convenience. Reduces the time and cost factor to just the nearest financial access point.</td>
<td>Revenue split from the commissions paid by school.</td>
<td>Commission paid by school.</td>
<td>Cost-savings via unclogged banking halls and school payment handling.</td>
<td>Convenience, automated reconciliation</td>
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</table>
Digital fee payment solution (contd..)- Positives and areas for further discussion

**Positives:**
- Has a barrier to adoption – phone ownership / internet penetration and maintaining an active account.
- This solution encourages periodic usage of a digital account and has the potential to increase customer adoption and formal financial inclusion.
- It is easier to layer on products once users already have an existing account.

**Areas for further discussion:**
- Many current users in Zambia are used to ‘agent-assisted’ transactions. Hence, financial service providers might need to incentivize users to switch from agent assisted payments to initiating remote payments. Some examples could include – remotely initiated payments being cheaper, target based interest bearing savings accounts that help save for large payments like school-fees e.g. KCB M-Pesa
- Other dependencies include **USSD access**, agent footprint, liquidity management and schools on-boarded.
The Digital school fee payment market in Zambia significant

10 million annual payments (Volume)

$86 million annual payments (Value)
Next Steps

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<th>Feedback and Partnerships</th>
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<td>2.</td>
<td>Group Exercise on potential solutions.</td>
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Thank you