



**Digital Finance and
Innovations in Education
Workshop Report**

**Nairobi, Kenya
7 April 2016**

Background

CGAP's Digital Finance Plus initiative convened a workshop on 7 April 2016 aimed at bringing together stakeholders interested in the opportunities for digital finance to improve the affordability of education for low-income households. The workshop objectives included:

- Develop a more robust understanding of the challenges faced by low-income households with regards to paying for education.
- Understand the ways in which technological developments in digital finance are already opening spaces to enable low-income households to access education.
- Explore solutions which help solve challenges and provide children with consistent access to education.
- Surface connections between different stakeholders in the education and financial services sector.

The workshop was organized in two parts: (1) presentations from industry leaders to highlight challenges and emerging solutions; and (2) a design thinking session to surface new ideas and solutions that might help low-income families afford the cost of education.

This document captures themes from the workshop presentations and design thinking session.

Key Observations

- Many households see education as the key to moving out of poverty.
- Low-cost private schools are emerging to fill the gaps left by public schools, and even public schools often charge fees to cover their costs.
- Many families in Sub-Saharan Africa are spending 20-50% of their household budget on education. This is prohibitive for many families and they are forced to keep some or all of their children out of school due to lack of fees. Beyond the cost, it is time consuming and inconvenient to pay school fees at banks.
- Paying for school fees with mobile money has many benefits for schools and families. It is more convenient, and provides better transparency and controls.
- Some schools are also paying teachers using mobile money, which could help address teacher absenteeism as they no longer have to travel to a bank to receive their salary.
- Mobile money also paves the way for innovation in financial products for education. Savings and loans delivered over the phone are more convenient and help parents save incrementally toward their education goals. Short-term digital credit may also help when there is a shortfall.

How is digital finance changing the landscape of education?

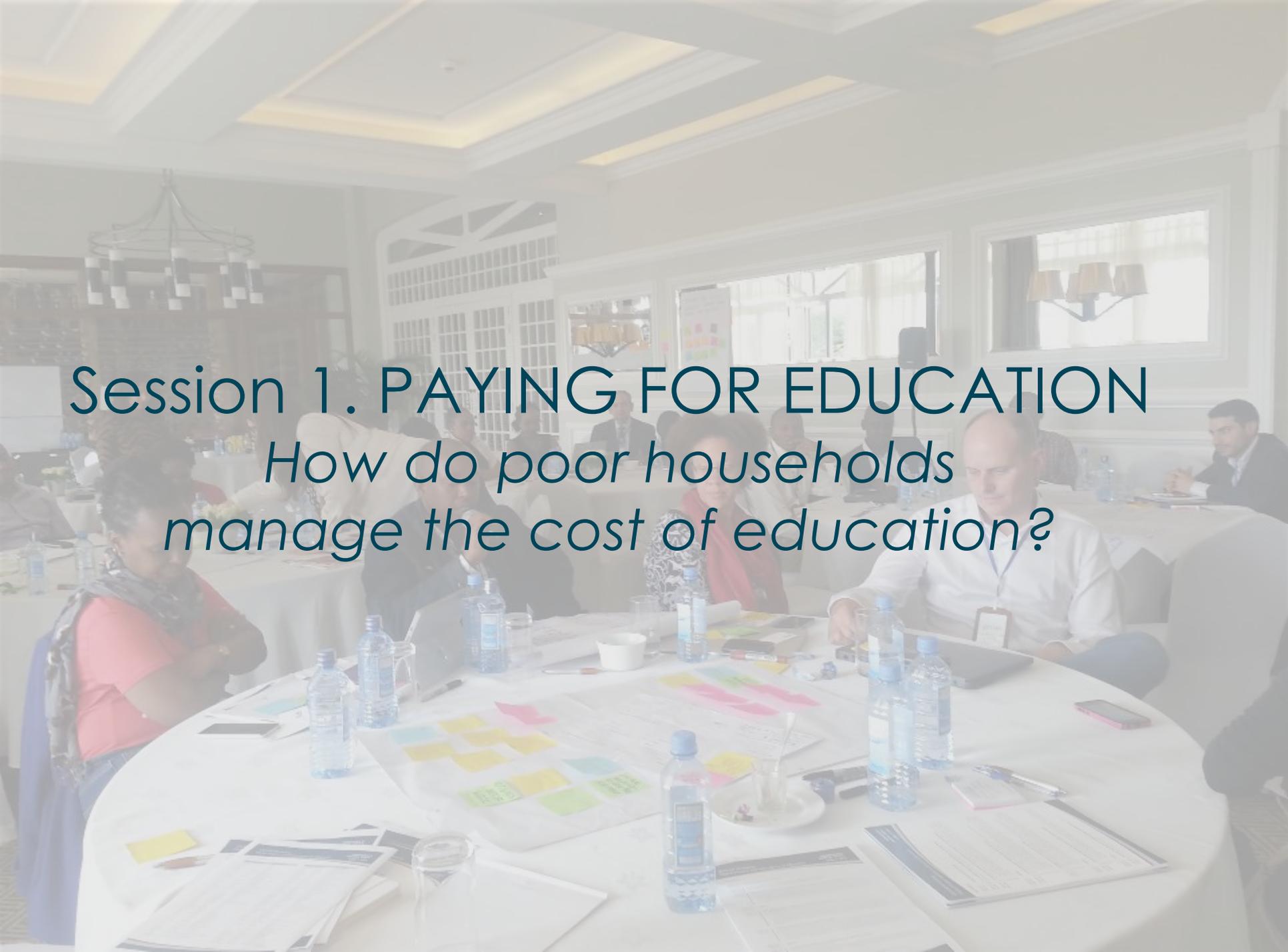
Lauren Braniff, CGAP

There are 59 million children out of school globally. Enrolment is improving but still falls short of meeting the Millennium Development Goal of universal primary education.

Cost is one of the major obstacles keeping children out of school. In 12 African countries, 56% of the household budget is spent on education-related expenses. In Kenya, this figure is about 11% on average, but as high as 18% for agricultural families. Education is a significant expense for poor households, but it's also a top spending priority as it represents a better future for their children.

We see three types of opportunities for digital finance to make it easier for families to pay for school. The goal is to make available a range of solutions which make it **easier to pay, more affordable, and facilitate access to credit when there are shortfalls or emergency situations arise.**





Session 1. PAYING FOR EDUCATION

How do poor households manage the cost of education?

Paying for education: how do households manage the cost of education?

Julie Zollmann, Bankable Frontiers Associates

The Kenya Financial Diaries project worked with 300 families between 2012 and 2015 to capture data on household finances and cash flows. The project captured many highlights, including detailed information on how people pay for education.

Challenges at primary and secondary level

Paying for school starts off difficult and just gets harder. Costs increase significantly from primary to secondary school, creating a strain on the household budget as caregivers strive to pay for children's education.

A typical family in this research earns about KES 7,000 per month. Education is ALWAYS at the top of their list of priorities and it causes them a lot of financial strain and worry.

For nearly all the families with school age children, education was the biggest expense after food.

Paying for education: how do households manage the cost of education?

Julie Zollmann, Bankable Frontiers Associates

Coping strategies

- Families obtain money from relatives and social networks or sell their assets to make bulk payments.
- Those who have jobs take loans to pay school fees.
- When children are sent home, caregivers then start “looking for money” and do whatever they can to raise some money.
- When exams approach, people sell assets so their children can be allowed to attend school and do exams.
- Parents are already saving a lot for education; some are saving too much. Savings are helpful but when do they become less valuable? When parents are not able to pay for food and for healthcare?

Ideas to address these challenges

- Use of credit to bridge cash flows and smooth irregular incomes.
- Subsidies and transfers to help pay for education.
- Scholarships for needy students.
- Improving the use of remittances and social network financing to get more money to the families who need it.

Paying for education: how do households manage the cost of education?

John Ndunguru, Bill & Melinda Gates Foundation

Research in Uganda revealed some key challenges for low-income households:

Household challenges

- 38% percent of the population is below the poverty line of \$495/year
- 90% of children in low-income public schools subsist on one meal per day
- The cost of sending children to school can be up to 50% of the household income in rural areas
- 23% of children walk long distances to school (over 3 km)

Institutional challenges

- Capitation grants are often delayed
- In-kind costs, such as paper, cement and food make going to school expensive
- Teacher absenteeism is very high at 27%
- 43% of children are vulnerable and drop out because of lack of school fees

Sociocultural challenges

- Parents with multiple children have to choose which children go to school (usually boys)
- Pregnancy and early marriage lead to girls dropping out of school
- Children sometimes stay home to take care of relatives

Paying for education: how do households manage the cost of education?

John Ndunguru, Bill & Melinda Gates Foundation

Key Observations

- Bottom 40 Segment: HH have insufficient funds to cover the cost of education. Income boosting programs or tuition forgiveness programs are needed (e.g. cash transfers, need-based scholarships).
- Middle 40 Segment: HHs generally able to manage education expenses, but financial products and services are needed to assist with education costs and weather financial shocks (e.g. savings, reduce transaction costs, mitigate financial shocks).
- Top 20 Segment: HHs can manage education expenses but face high opportunity costs. Need solutions to streamline and reduce the cost of payments (e.g. mobile payments).

Proposed sustainable and inexpensive solutions

- Automatic savings account for each child funded by external agencies
- Low-interest, forgivable loans
- Conditional cash transfers – reducing transfer fee to make it cheaper for consumers
- Digitising payments
- Mobile savings accounts
- Integrating financial services to reduce absenteeism among teachers who have to go to town to access their salaries.

Quotes from the Day

Just like anywhere else in the world, there is more and more pressure to move further along in the education process.

Parents are already saving a lot for education; sometimes at the expense of other necessities.

Paying for school starts off difficult and just gets harder!

The school fees aren't that much, but a lot is expected from families. In-kind contributions make up most of the costs.

Households have a trade off, to decide which child goes to school. A girl is often selected as the one who doesn't attend school. How can we help households bridge the gap using sustainable and inexpensive solutions?

Sometimes parents find themselves unable to pay to keep their children in the very good schools that they got into. These students are therefore downgraded to a lower and cheaper school. They subsequently get demotivated, lose interest in their studies and start getting bad grades. The opportunity fades away. This is bad for the country because it loses out on this talent pool that it has been built up. It is even worse for the parents who assess their success as parents based on the education of their children.

A photograph of a conference room with people seated at round tables, a presenter at the front, and a large screen displaying a presentation. The room has a high ceiling with recessed lighting and large windows on the right side. The text is overlaid on the image.

Session 2. EMERGING SOLUTIONS

Digitizing Payments in Education

Emerging solutions: digitizing payments in education

John Muchiri Muriithi, Safaricom

Safaricom offers an M-PESA bill pay product, Lipa Karo na M-PESA, designed for school fee collection.

- There are currently 4,000 schools accepting M-PESA as a payment platform for schools.
- For every electronic payment, the customer saves 3 hours.

Some challenges and opportunities

- Technical capacity of schools: Schools lack computers and electricity and so have difficulty collecting digital payments. However, the government is in the process of digitising schools and equipping them with electricity. Moreover, Safaricom has provided a USSD interface through which parents can send payments to the school bursar.
- Need for flexible payment schedules: Parents have irregular incomes and need a flexible payment schedule which allows them to pay over a period of time. Aggregators could play a role in supporting solutions to facilitate partial payments, and SACCOs could play a role by providing loans and remitting these loans directly to schools on the parents' behalf.
- Awareness: Many households know about using M-PESA for P2P but do not know that M-PESA can be used to pay school fees. Need campaigns to drive uptake.

Emerging solutions: digitizing payments in education

Clayton Au-Yeung, Bridge International Academies

Bridge International Academies has 438 academies with 100,000 students in Kenya, Uganda and Nigeria. All academies are cashless and do not handle money; payments are handled centrally at Bridge headquarters.

How it works

- Parent finds a local agent provide the transaction amount in cash along with Bridge International Academies' account number and the pupil ID number
- The agent will input the information and make the payment
- Equity Bank's system, which has a connection to our systems, will cross check the pupil ID to make sure it is accurate before accepting payment
- Once accepted, a payment notification is immediately sent to our servers where the payment is then automatically credited to the pupil's account and matched against any due bills
- The Equity agent prints a receipt that is then given to the customer
- An automated SMS is sent to our pupils registered phone number from Bridge recognizing the payment

Emerging solutions: digitizing payments in education

Clayton Au-Yeung, Bridge International Academies (cont'd.)

Benefits of the cashless system

- Parents are able to make payments at the nearest M-PESA or Equity agent, no need to travel to the bank.
- There is no need have a treasurer at the academy.
- There is no manual work required to keep track of payments.
- All payments go directly to the central system ensuring better controls.
- Bridge has been able to scale quickly.

Some challenges

- Timely to roll out a digital payment system in new markets.
- It is very important to get the system working right before rolling it out to customers.

Emerging solutions: digitising payments in education

Bryan Kariuki, Cellulant

Cellulant is a technology business providing mobile payments solutions. It runs a payment ecosystem which involves four participants: banks, mobile money operators, merchants who generate bills (e.g. schools) and consumers (parents).

Cellulant operates in 10 countries and works with 34 mobile network operators and 54 banks.

Paying and collecting school fees is difficult and time consuming

- Parents withdraw money from their bank, then take the money to the school's bank. Institutions use very few banks meaning parents have to put up with long queues at specific banks.
- The school's bank issues a payment slip, and parents must take this slip and queue at the school to prove payment.
- Very long queues at banks and learning institutions lead to massive time wastage
- There are problems with reconciliation and payment can remain unacknowledged for several weeks. The caretaker or student has to keep going back to check that the payment has been reflected

Emerging solutions: digitizing payments in education

Bryan Kariuki, Cellulant (cont'd.)

Proposed solutions: simplify the process using technologies each actor is accustomed to using

- Use of automated bill reminders when invoicing.
- Payment to learning institutions through M-PESA or parents/caretakers' banks through mobile/internet banking.
- Automated settlement and recognition of payment by school systems.
- Automated notification of payment to parents followed by a printed receipt.
- Automated reconciliation through a web-based portal.

Challenges

- Most payment platforms require a 1-5% charge which is not covered by the school. Such charges are very significant and discouraging to parents.
- Most of the solutions relating to payment service providers (particularly banks) only work for the top 20 percent of population.

Quotes from the Day

20% of teachers are absent from school because they are going to retrieve their salaries.

You take 1.5%. This system is not better than cash. Show me a system which is better than cash.

If you can't process transactions for free, you are going to lose the developing market altogether.

Direct salary transfer via mobile money is not the right solution. We are advocating that teachers can still access bank accounts, but that the money can be transferred from a bank account to their mobile wallet. We will have a bigger win in the bank to wallet integration.

There is a perception that M-PESA is for P2P, but not for a school or an institution. These are things we need to demystify.

When you take someone who has never had a phone, and then you ask her to make a payment, that behaviour change takes a lot longer than we had anticipated.



Session 3. EMERGING SOLUTIONS
Financing for Education

Emerging solutions: financing for education

Tanaya Kilara, Bridge International Academies

Context

- Parents want their children to access quality education and see that as the ticket out of poverty.
- They want to keep their children in school but they face two major challenges: irregular income and emergencies. Even when they find a way of smoothing their income to make payments, an emergency can change everything and leave them with nothing for school fees and other expenses.

Introducing more flexible payment schedules

- When Bridge started, we tried having parents make monthly payments but parents had difficulty making these payments.
- Now, schools do termly payments which are supposed to be done at the beginning of the term, but the academy manager has a lot of flexibility to negotiate with parents regarding these payments. Parents are therefore able to get more time to pay and to split payments.
- Parents can then use their pupil account to save towards fees for the next term and do not have to pay in lump sum.
- Bridge has negotiated a rate with Safaricom which ensures that split fees do not become too expensive for parents.

Emerging solutions: financing for education

Tanaya Kilara, Bridge International Academies (cont'd.)

Potential solutions for mitigating emergencies

- Bridge is looking to partner with organisations that offer particular services and combine these with financial products. For example, education loans could be bundled with services from pay as you go solar energy companies. When caretakers make payments, part of these can go towards the solar kit and the rest to education loan repayments.
- From the customer's standpoint, it relieves a burden. They know, "no matter what happens, my kid is in school."
- This is good from Bridge's business model standpoint, because instead of needing to worry about the money coming in, they can just focus on delivering high quality education.
- Bridge is also thinking of partnering with microfinance insurance companies to create an education insurance product.

Emerging solutions: financing for education

François Coupienne and Amani Mbale, UN Capital Development Fund

The UN Capital Development Fund (UNCDF) is using a market development approach to expand usage of digital finance throughout Uganda.

- Agriculture value chain (coffee, tea, seed oil)
- Government payments (Sage)
- Support to banks, MNOs, aggregators, BoU, MoF

Using the example of digitizing the coffee value chain, there are many challenges:

- Operational flexibility & capacity of MNOs
- Infrastructure (network coverage, phone, access to power)
- Phone literacy → impact on phone loan product
- Weak value proposition for agents + end users → limited uptake
- Stringent registration requirements
- Behaviour change barriers especially for women in rural areas in regard to use of mobile phones. Making the transition from not having a phone to being able to make digital payments takes longer than anticipated.
- High costs for agents – they need to invest at least 1 million Uganda shillings, have a registered company, a tax ID number and bank activity/transactions for a month.

Emerging solutions: financing for education

François Coupienne and Amani Mbale, UN Capital Development Fund (cont'd.)

Opportunities in the education sector

Teachers (payments)

- Bank-MNO partnership to improve accessibility
- Increased teachers presence and motivation by bonus for performance → increase school efficiency

Students (registration)

- Improve/digitize current solution/ways of working (MTN school suite, etc.)
- Develop fun application for students to register and update information → up-to-date database

Caregivers

- Digitize payments the way it is currently done
- Develop “pay as you can” solution -> school attendance
- Offer loans products linked to harvest

Government, financial services providers

- Working separately to develop their own solutions
- A joint approach with same message, similar experience/pricing → transparency (Cote d'Ivoire example)

Emerging solutions: financing for education

Khalila Salim, MasterCard Labs

Context

- MasterCard Labs focuses on financial inclusion and aims to create innovative solutions that will impact 100 million people. It seeks to help the poor manage risk better and live empowered lives.
- People have access to digital solutions but they do not use them because of the transaction cost. Their view is: "You take 1.5%. This system is not better than cash. Show me a system which is better than cash."
- Kupaa (translated as 'to soar') is an initiative which is intended to ensure that no child shall drop out of school because of school fees. Sample of challenges we aim to tackle:
 - Unpredictable income and limited financing options for caregivers
 - Limited flexible payments/in-kind payments
 - Teacher absenteeism due to travel to collect salary

Emerging solutions: financing for education

Khalila Salim, MasterCard Labs (cont'd.)

Proposed Solution

- A flexible payment system for caregivers which link into financial offerings for BoP
- Concept being refined with partners/human centered design to be executed in May 2016
- Lessons from Ivory Coast
- Making sense of GIS Data (Brand Fusion)
- Costs of connectivity and options within Innovation (Advocacy Opportunities)

Next Steps

- Profiling human-centred design, to prototype with the government.
- Run a pilot programme which will lead to evidence-based advocacy.
- Start HCD between now and July 2016
- Carry out prototyping and validation in August
- Do a mini pilot study in 2016 and a full pilot study in 2017
- Scaling

Emerging solutions: financing for education

Ron Webb, Equity Bank

Observations

- Equity Bank bridges payments and financial products.
- The answer to problems in financing education and other sectors lies in providing free transactions for payments. Transactions less than \$2 need to be completely free to ensure user uptake. If this is not done for developing markets, the industry will lose out.
- Up to 94% of transactions are still done in cash. Equity provides products which can compete with cash, including free bank accounts and services, and taking payments through Equity agents. Mobile payments are 100 percent free but too many people still pay in cash.
- Equity provides a goal-based savings product where clients name a goal and save towards it. Not everyone has access to credit. Banks therefore need to find a way of rewarding savings by providing better interest rates and discounts on access to services. In education, these could include discounts on uniforms or transport.
- Equity is also rolling out free wifi hotspots – currently 200 – to help parents and schools with data access problems.

Emerging solutions: financing for education

Jennifer White, Student Finance Africa

- Student Finance Africa (SFA) is a start-up company enabling secondary school graduates to access finance to attain university and vocational education.
- It is a data-driven and tech-enabled solution which leverages selective partnerships. SFA partners with universities to market our solution to students, and works with universities on career placement services.
- This is a student-centric solution. Current solutions are not practical due to high interest rates, collateral requirements, and short payback periods.
- SFA provides loans for up to 84 months depending on the program. These products are not fixed in duration. Students pay interest only while in school.
- One of the challenges observed is the fact that there is a high drop-out rate in the third and fourth year of university. Our product will help more students access higher education, and keep them there.

Quotes from the Day

If we start credit in primary school, the burden gets heavier and heavier. How to do we get households out of this credit cycle? Are we making it better or worse for them?

We don't want to put people in a constant cycle of credit, but with seasonal incomes, credit serves as a short-term solution when they are off-harvest.

Are there any ways in which the fees can be brought down?

She was a master of garnering support from her social networks. There is a lot of reciprocity in the family. The whole family are in it together. Are we really maximising this redistribution in the network?

One of the issues is penetration of mobile payment in rural areas. There are not enough agents in these districts.



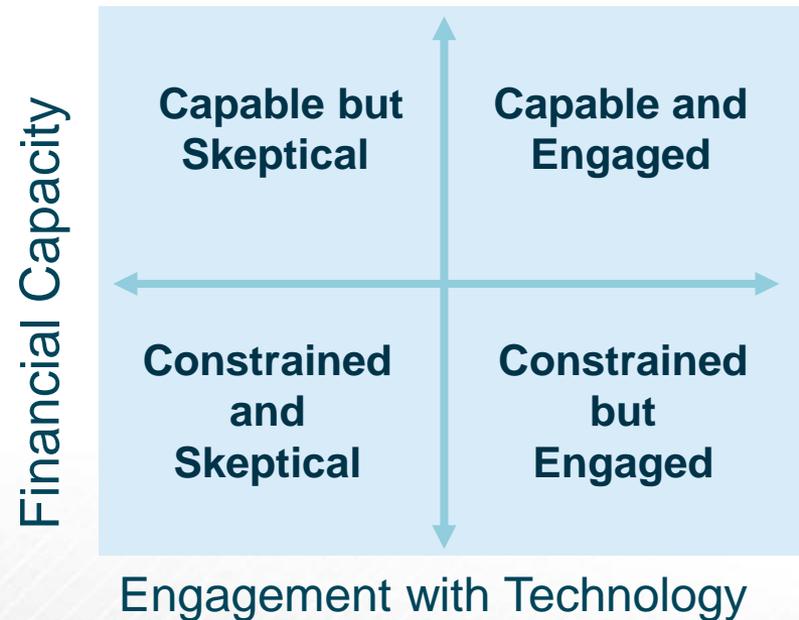
DESIGN SESSION

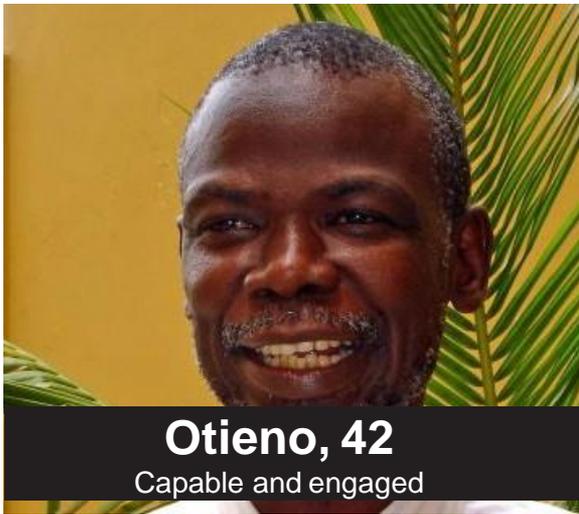
Using the knowledge shared during the morning presentations, the group developed personas to represent potential customers and designed solutions to help address their constraints regarding the cost of education.

Step 1. Engaging with Personas



TASK: Develop a set of personas representing a diverse range of customer types along the axes below.





Otieno, 42

Capable and engaged

About me

I live in Runda, Nairobi and am an established businessman. I work hard and enjoy a good lifestyle. I have two sons who attend private school.

I am very busy running my businesses. I have to personally oversee the smooth running of my companies and I do not have time to follow up on my sons' progress in school or to keep asking for information from the school. I am always connected to the internet on my smartphone, ipad or laptop.

MAKE IT FIRST

By taking into consideration my busy lifestyle and my engagement with technology

My hopes and dreams

I want my sons to get the best education available. I want them to grow up to be successful and enjoy life to the full.

I want to be able to provide this without having to compromise on the time I need to dedicate to my businesses.

At the same time, I want to be a good father by being fully engaged in my children's lives.

When designing for me:

you must

Understand that I have the means to stay connected and engaged. You should leverage my willingness to use my resources to improve my experience as well as that of other stakeholders in my sons' education

you should

Make it convenient for me to learn about what is going on in my children's academic life and make it easier for me to be more involved in school activities

you must not

Propose a solution that is too tedious or limited in capability

RECOGNISE MY STATUS

As I have ample resources and like using them to make my life convenient.

My challenges and barriers

I am not adequately informed about my children's progress and other school activities. The information that I receive is often sporadic and outdated.

Calling the school takes a lot of time and often it is hard to get connected to someone who knowledgeable. This is time-consuming and very frustrating.

HELP ME STAY INFORMED

As I want to be more engaged in my sons' experience and progress in school



Mutua, 56

The capable, the skeptical

About me

I am a mango farmer and have been growing mangoes for most of my life. I make a decent living but it varies depending on the season. I am married with four children and two grandchildren. I am lucky that I can sustain my family with food from the farm. When I need advice I turn to my brothers. Recently, they told me about different ways I can pay for school fees, but I just don't trust new things that come in and claim to solve things. I don't like changing what has been done before.

CONVINCE ME

By giving me relevant information through channels that I trust

My hopes and dreams

- I want to lease some of my neighbor's land, so I can plant it and get more money flowing in
- I want the remainder of my children and grandchildren to be educated
- I want to eventually buy a boda so I can go and sell my mangoes at a bigger town and get more money for them

When designing for me:

you must

address my reluctance to engaging with something new, I need you to highlight what the benefits will be for me

you should

find ways to help me manage my money and weather my irregular cash flows

you must not

talk down to me, I have been farming a long time and have survived so far, I just want to know how I can be better

ADDRESS THE RISKS

By allowing the product to be as little investment as possible from my end

My challenges and barriers

- There are times during the year I have no money. I get large sums of money at harvest, and nothing at other times
- I have a lot of people I look after, at times it's a heavy burden
- I borrowed once from a bank and I am still trying to repay that debt
- I am getting old, its hard for me to keep working at this pace. I just want to know that my family will be looked after

MAKE IT SIMPLE

By creating solutions which incorporate the technology and mediums that I already use



Esther, 35
The teacher

About Esther

I am married with 4 children of my own. My sister passed away recently and now I am looking after her 2 children. My husband is also a teacher and we try our best to make things work.

What I earn, I use to take care of my family. I live away from my family as the school I teach at is far away. I spend a lot of time away from my children and I feel bad not seeing them grow, but I know that I have to make a living so they can thrive and be successful.

EMCOMPASS MORE

By giving me relevant information that is given to me in channels that I trust

My hopes and dreams

- I want to be with my family more, or at least be more connected to them
- I want to grow my side business to supplement my income
- I hope that my children get educated and become something
- I want to not worry anymore and be able to do the things that make me happy

My challenges and barriers

- I have a lot of people depending on me for money and also for advice.
- I am constantly thinking about money. I always have to figure out where I will get money.
- To collect my salary I have to walk to the next town. This takes time away from my side business.
- I travel home once a month but it's far and its expensive. I just feel tired all the time.

When designing for me:

you must

understand the complexity of my professional and family life and the motivators that drive me forward

you should

help relieve the stress of the multiple demands on my life

you must not

add another level of something that I have to look after or invest time in, i just don't have the time.

COMFORTABLE WITH TECH

And innovations, I always push my children to think wider as that is what will make them succeed

I DON'T HAVE TIME

So give me something flexible, easy and not too time consuming



Kariuki, 45

Long term farmer, constrained & skeptical

About me

I have been married for 20 years and have 4 children. Two of my children have left my home and now live in Nairobi. My main sources of income are from the crops I grow, but I also farm eggs and produce honey as secondary crops. I usually earn enough to support my immediate family, and also my mother and nephews.

I like meeting and talking with men in the local area and sometimes watching football.

BE PATIENT

As it will take me a long time to learn new things

My hopes and dreams

- The most important dream I have is to see my children healthy and successful. I really want them to have a better life than I had.
- I want to improve my farm so that I can increase my yield and make my income more steady.
- My body is starting to have a lot of pain when I work, so one day i would like to be able to retire and not farm anymore.

My challenges and barriers

- I am often cheated by agricultural dealers and agents - I don't trust them
- I am often hit with hidden costs, like school fees
- My income is seasonal and its hard to predict what i'm going to get paid for each harvest
- I have difficulty with new technology
- I often have to make tough choices in prioritising my spending

When designing for me:

you must

provide information or support from a trusted source, otherwise I will revert to the way I do things now

you should

not tell me what to do, but let me work out something which suits me and my family

you must not

force me or try and convince me to do something, I'm very wary of people trying to cheat me and take my money

CONNECTIVITY

I don't always have power and connectivity

WARY OF NEW THINGS

As new technologies and farming techniques often cost me money and don't do what they promise



Paulette, 38

Constrained but engaged

About me

I live on a small farm in Kakamega in Western Kenya. I farm maize, tomatoes and sometimes avocados.

I work really hard and my husband sometimes gets casual work as a boda driver, but times are hard. I have a sister overseas who sometimes sends money so I am able to better take care of my family.

Recently, I had to take my daughters out of school because I couldn't pay school fees. My son is the only one attending now. I hate that I had to choose.

My hopes and dreams

I want my kids to be well educated and have better opportunities than I did.

I want my husband to get a better job so he can contribute more to looking after the family.

I want to have a vegetable stand at the market, so I can sell my produce directly to people. Those buyers never give me enough money.

My challenges and barriers

I feel disconnected to the outside world as I am always on my farm and only have a basic phone to call family and friends.

There are periods of time when we have no money at all because we are in between harvests. These are the hardest times for me.

We walk far to get to church, to school and to town. My children spend many hours a day walking and it's hard on all of us.

When designing for me:

you must

Understand that I already seek out information and am engaged. You should leverage my trust networks and speak to me as an equal.

you should

Give me the opportunity to choose what is best for my family. I need to have options and flexibility but am open to trying something new.

you must not

Make any solution too tech heavy. I am literate and have a phone but my access is limited due to my location, electricity supply and prioritisation of cash flows.

MAKE IT FLEXIBLE

by taking into consideration my inconsistent cash flows and rural location

MAKE IT RELEVANT

as I have limited resources, a small feature phone and haphazard electricity

HELP ME SUCCEED

as I don't want to just be getting by or have just enough to educate my children, I want to go further

Step 2. Concept Development

TASK: Using the personas as a guide, prototype financial products that help resolve the persona's key constraints to accessing education.

- 1.** ■ An app to provide up-to-date, detailed information about students and the school systems
- 2.** ■ Automated and flexible school fees payment and reconciliation system
- 3.** ■ A school fees loan linked to farmers' saving capacity
- 4.** ■ A benefits-added savings scheme for farmers
- 5.** ■ A sponsored upgrade of teachers' skills to enhance their quality of life and make them more efficient at work

Concept 1: Sophisticated time-saver

An app to provide detailed and up-to-date information about students and school programmes to parents who are tech-savvy but are time-constrained.

How will it work?

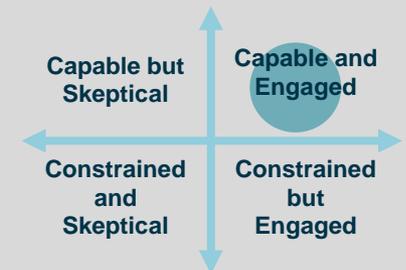
This concept is aimed at parents who have no problems paying school fees or using technology but they do not have time to engage with the manual or analogue processes used in schools.

Working with parents through the PTA, the school will commission a company to develop **an app through which parents can get information, such as the school calendar, fee structure, scheduled meetings, overall and subject performance ranking, student's attendance sheet**, the student's performance in various subjects, meals offered, co-curricular activities, events, teaching staff, contact details, etc.

The app will be **available for purchase by parents** who will use it on smart phones, tablets and computers. There will be an annual fee, charged at the beginning of the first term, for use of the app. A portion of the money generated will be used to maintain the app and the rest of the money will be put into a fund, managed by the PTA, to sponsor students with high academic capability but whose parents struggle to pay school fees.

Capacity/Engagement

This concept will best suit capable and engaged personas.



Concept 1: Sophisticated time-saver *contd.*

An app to provide detailed and up-to-date information about students and school programmes to parents who are tech-savvy but are time-constrained.

1. What persona 'need/s' will this concept will address?

This concept will address the persona's need for an more **convenient** and **time-saving** way of accessing information about his children and their progress at school. It will also provide him with **accurate** and timely information about planned school activities which will enable him to better plan to attend them.

2. What stakeholders are involved?

- **Parents/caregivers** –finance the app, pay a subscription fee, use the app to access information.
- **Schools** –coordinate the setup and running of the app, manage the money it generates.
- **Telecommunication Company or Mobile Network Operator**–build and maintain the app.
- **Bank or digital mobile money agents** – facilitate the transfer of money between parents and the school and between the school and the telecommunication company.

3. What stakeholders are missing or could add to this concept?

Charitable organisations could replicate this model in other schools and provide leadership and management capability. They could also offer to match the revenue generated from parents through the app and use it to sponsor more students from low income backgrounds.

4. What are the expected outcomes of this collaboration?

- Parents or caretakers have more convenient access to accurate and up-to-date information.
- Parents will be fully engaged with their children's education, while also focusing their time and energy on their income generating activities.
- Schools will be able to provide better information services at no extra cost.
- Surplus money generated will be used to sponsor students from low-income backgrounds.
- This will ensure high quality education is accessible to more students and will ultimately lead to a nation equipped with high-quality manpower.

Concept 2: Time to get flexible

An automated payment and reconciliation system which allows parents to make flexible payments.

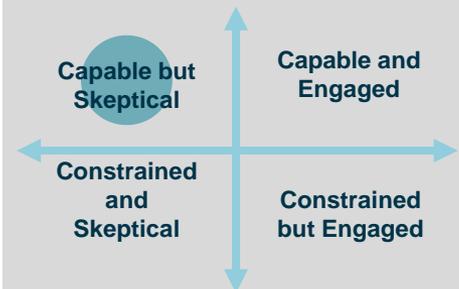
How will it work?

Working with parents (through the PTA), the school (or perhaps Ministry of Education should take the lead) will contract a digital finance provider to create a product through which **parents can use mobile money or agents to make split payments to the school**. The product will allow for automatic reconciliation once payment is made and will also send a weekly text message to parents' or caregivers' to inform them about the balance on their payments.

The school will foot the running cost of the system and will ensure that parents are motivated to use it. The school benefits because they will **collect more money from parents in a timely manner** (as parents will pay as they get money rather than waiting until they get a large amount of money). This will enable the school to run its programs more efficiently, and will require less manpower to follow-up on non-payments. Keeping more students in school will potentially lead to better results in national exams.

Capacity/Engagement

This concept will best suit capable but skeptical personas.



Concept 2: Time to get flexible *contd.*

An automated payment and reconciliation system which allows parents to make flexible payments.

1. What persona 'need/s' will this concept will address?

This concept addresses the need for **flexibility** by allowing parents to make split payments at their **convenience** (in terms of time and location) without worrying about **extra charges** or **reconciliation problems**. It will also **save time** which can be redirected into income generating activities. Automated reconciliation and frequent updates on the fee balance will keep users **fully informed** about progress toward financial goals.

2. What stakeholders are involved?

- **Schools** – will oversee the setup and smooth running of the system.
- **Mobile Network Operator**– will build and maintain the system.
- **Parents/caregivers** – will use the system to make more flexible payments as and when they can afford them and keep track of their balance.
- **Bank or digital mobile money agents** – facilitate the transfer of money from parents' accounts to the payment system.
- **Collection agents** – might be contracted by schools to receive the payments that parents make.

3. What stakeholders are missing or could add to this concept?

Federal government – Working through the Ministry of Education, the government could collaborate with a telecommunications company to set up and roll out this system in all public schools. That might work better because some schools might be unwilling to spend the money required to set up and maintain the product.

4. What are the expected outcomes of this collaboration?

- Parents or caretakers will have the flexibility to make split payments whenever they come into some money.
- They will have access to a clear record of the payments that they have made and the balance that they still have to pay.
- They will make more frequent payments as they will not be incurring any additional expenses from the system.
- Schools will be able to keep more students in school.
- Teachers will focus more on their actual work rather than on following up on unpaid fees.

Concept 3: Rewarding industry

A school fee savings and loan program, tied to a farmer's income cycle.

How will it work?

This loan facility will be organised through the school, which will negotiate with a bank on behalf of farmers with seasonal incomes. Parents will set up a customised **savings account to save towards school fees**. The farmer will be required to deposit a certain percentage of his income during harvest periods.

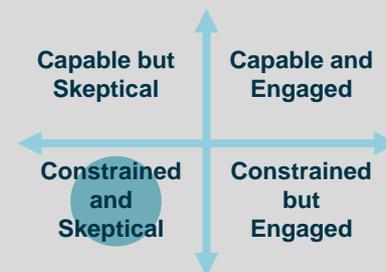
This savings account will be **tied to a low-interest loan facility**. The amount of the loan will be calculated based on the farmer's income and savings history, and will be transferred directly from the bank to the school.

Loan repayments will be scheduled in accordance with the income cycle. There will be **interest-free grace periods** when the farmer is not making any income. If the farmer pays off the loan early, he will be offered higher loans in future at even better interest rates. The farmer can also refer friends and earn a commission.

The bank will keep the farmer informed through **regular text messages**. The school will also send the farmer a message showing updates to his payment record. This will enable the farmer work with clear financial objectives in mind.

Capability/Engagement

This concept will best suit constrained and skeptical personas.



Concept 3: Rewarding industry *contd.*

A school fee savings and loan program, tied to a farmer's income cycle.

1. What persona 'need/s' will this concept will address?

This concept will provide the farmer with the **flexibility** to manage his **seasonal income** and keep his children in school. Providing him with a **low-interest loan** will keep him from incurring more debt at high interest rates from money lenders. It will also enable him to retain his **assets**, which he would otherwise be forced to sell to enable his students sit their exams. Building a **good credit record** with the bank will enable the farmer have access to **future financing** which might eventually go beyond his school fees needs. This would enable him build up his investments over time and have a **more stable income**.

2. What stakeholders are involved?

- **Schools** –help the farmer initiate a relationship with the bank.
- **Bank** –provide the farmer with an expense-free savings account, an affordable loan facility and free financial advice.
- **Parents/caregivers** –access to affordable financial products which will enable them keep children in school.

3. What stakeholders are missing or could add to this concept?

NGOs/Agriculture extension workers – Could work with farmers to help determine their needs. These might include access to better markets for their crops, better infrastructure, etc. Enabling farmers to address these needs will help them enhance their incomes and better meet school fees requirements.

4. What are the expected outcomes of this collaboration?

- Farmers will be able to subsist on their income and use it to put their children through school.
- Paying school fees will not over-indebt farmers or require them to prematurely sell their assets.
- Schools will receive more predictable payments which will enable them to run their programmes more efficiently. This will improve the overall functioning of the school and possibly even the school's performance and ranking.
- Banks will build a new loyal client base with farmers.

Concept 4: Scratch and win school fees!

This is a high-interest savings product drawn from a percentage of the farmer's income, coupled with a bonus periodic scratch and win raffle during football games.

How will it work?

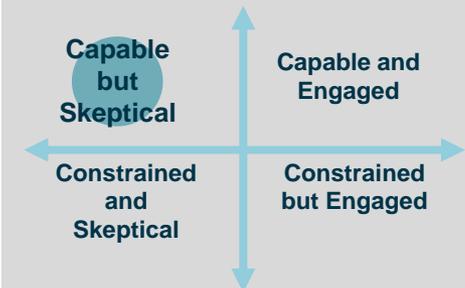
This concept is delivered through a **partnership between the government, schools, and a bank** to help farmers with seasonal incomes to save enough money to keep their children in school throughout the academic year.

The bank will provide the farmer with a **low-cost, high-interest savings** account. At each harvest, a portion of the farmer's earnings (which will be transferred directly from the buyer to the farmer's savings account) will be **deducted and transferred to the school**. Through a USSD menu, the farmer can access information on account balances at the bank as well as the fee statement from his children's school.

Since the farmer is also an avid follower of English Premier League, the federal government will run **scratch and win raffles during games**. Any winnings from this raffle will be put in the winner's school fees kitty. High interest rates and the excitement of the potential raffle win will motivate more farmers to join.

Capability/Engagement

This concept will best suit capable but skeptical personas.



Concept 4: Scratch and win school fees! *contd.*

This is a high-interest savings product drawn from a percentage of the farmer's income, coupled with a bonus periodic scratch and win raffle during football games.

1. What persona 'need/s' will this concept will address?

This concept will help address **liquidity** problems caused by the farmer's **seasonal** income. It will enable the farmer's children to stay in school both in and out of season. The concept will also capitalise on the farmer's **trust network** by strengthening the areas that he already engaged with (other men and institutions) and drawing solutions from these.

2. What stakeholders are involved?

- **Parents/caregivers** –put harvest money in a savings account and allow deductions for school fees.
- **Schools** –work with parents, banks and MNOs to set up a school fee savings scheme.
- **Federal government** –help farmers access markets to get higher returns. It will also support the raffles.
- **Bank**–provide a low-cost and high-interest savings account, make deductions for school fees, enable easy access to account balances.
- **Bookmaker and football club** – organise and run raffle draws.

3. What stakeholders are missing or could add to this concept?

- **Banks** – offer loans to farmers whose savings are not enough to cater for all their children.
- **Central Government and/or Charitable Organisations** – Provide scholarships for children's whose parents are still not able to meet school fees requirements.
- **Media** – publicise the benefits/success of the savings scheme and attract other stakeholders.

4. What are the expected outcomes of this collaboration?

- Farmers with seasonal incomes will be able to save towards their children's education.
- Schools will be better informed about parents' intentions to pay school fees and can better plan their expenditure based on this information.
- Students will stay in school and keep up with their studies.
- Banks will build a wider client base and nurture trustworthy and loyal relationships with customers.
- Farmers will have easy access to their bank statements as well as their children's fee statements.

Concept 5: The liberated teacher

An upgrade to the teacher's skills to enable her have better pay and more flexibility in terms of work station. This will be financed by a charitable organisation which will also ensure the teacher stays employed.

How will it work?

This concept is aimed at ensuring the teacher has an easier life out of school (less travel, proximity to her family, and ultimately, better pay) which will enable her to do a better job in school.

The teacher will move from her current work station in Samburu, where she teaches in a public primary school, to a private primary school near her hometown in Muranga. Here, she will be teaching part-time at the same salary rate. She will also be studying towards a Bachelor of Education (Special Education) degree part-time at a university campus in Muranga town. The persona's aim is to upgrade her teaching skills and acquire a new skill, that is, teaching students with special needs. This will allow her more flexibility to work in either the public or private sector in a station that is near her home. That way, she will live with her husband, visit her children (who are in boarding school) more frequently and spend less time and money on the road. This will also enable her to be more settled at work, focus more on her students and provide them with better quality education.

The teacher's studies will be sponsored by a charitable organisation which will also help her secure part-time employment at the same salary in a private school near her home. The employment contract will be of the same duration as her programme of study. Once she completes upgrading her skills, she can take on full-time duties at the same schools for a higher salary. Alternatively, she could seek work in a public secondary school near her home (or even in another private school) at a higher salary.

Capability/Engagement

This concept is aimed at teachers with high mobility and low liquidity concerns.



Teacher

Concept 5: The liberated teacher *contd.*

An upgrade to the teacher's skills to enable her have better pay and more flexibility in terms of work station. This will be financed by a charitable organisation which will also ensure the teacher stays employed.

1. What persona 'need/s' will this concept will address?

This concept will address the persona's need for a **higher salary** which will in turn enable her to address the education needs of her own children. Working near home will ensure the teacher has **quality time** with her family and help her to be more **focussed at work**. Less travel will save her both time and money which she can dedicate to her work and her family. Better skills will provide her with more employment options at a better salary and more **flexibility** in terms of work location.

2. What stakeholders are involved in this concept?

- **Teacher** – will get out of her current situation and routine in order to better her skills.
- **Private school** – will provide alternative employment to the persona as she upgrades her skills.
- **Charitable organisation** – will fund the teacher's education and help her secure new employment
- **Training institute/university** – will provide high quality education on a flexible schedule.
- **Bank or digital mobile money agents** – will facilitate the transfer of money from the donor's account to the training institute.

3. What stakeholders are missing or could add to this concept?

- **Teacher's Service Commission** – could make life easier for teachers by ensuring that they are posted to work stations which are near their homes. It will also ensure teachers who leave the public sector to upgrade their skills are able to return easily.
- **Accrediting agency** – will ensure that the education offered by universities/training institute adheres to industry standards.
- **The federal government** – could work with the TSC to ensure teachers are able to find employment within a reasonable distance of their homes and families.
- **Talent sourcing agency** – will help the teacher secure a job matching her skills (at the cost of the employer).

4. What is the expected outcomes of this collaboration?

- The teacher will spend less time and money travelling. That will enable her be less stressed out and better rested.
- Moving closer to her family will ensure the teacher has a better family life. This will ensure she is happier and more settled while she is at work.
- She will be able to focus more on her work and provide better quality education to her students.
- A well trained teacher will ensure schools are better equipped and lead to higher quality education. This will in turn boost enrolment rates and bring more income to schools.
- Better training will ensure the teacher earns a higher salary. This will make her more secure financially and help her meet the aspirations she has for her children's education.

Additional concept ideas



For the **constrained but engaged** persona

- Financial advice on putting remittances from her sister to better use.
- Help her channel her curiosity and eagerness to try new things into more income generating activities.
- Maximise the reach and impact of her savings group (chama).



For the **capable and engaged** persona.

- Give him better access to record keeping e.g. by providing training.
- Capitalise on his trust in and engagement with males.
- Provide him with information about accessing university bonds and T-bills
- Make use of his interests. For example, have relevant educational/banking agents at his football club.

- Connect her with equally capable and engaged partners in the community. Together they will have the means and drive to make a major difference.
- Make the needs of schools more apparent to her, i.e. clearly tell her what is lacking and what she can do about it. She has the community stature to help drive change.



For the **capable but skeptical** persona.

Additional concept ideas *contd.*

- Off season credit
- Reward system for every child in school
- Microinsurance to help fill the gaps in income
- Gender and performance-based rewards
- Index-based insurance
- Loan guarantee fund with discounts for timely payments
- Group school payments
- Group education lending
- Discounted uniform tied to loyalty rewards



For the **constrained and skeptical** persona



For the **teacher** working far from home.

- Upgrade skills using an online or mobile learning platform.
- Discounted or subsidized school fees to enable her pay for her children and other dependants.
- Participation in outsourced services – for example, oversee exams, mark exams, review books – to supplement her income.
- Get access to digitised payments and training on how to use them.

Asking the right questions... rather than looking for solutions

How can schools expand their sources of income so they rely less on school fees?

How can we channel subsidies and transfers (CCT) in an effective or efficient way? Could we make them results-oriented, for instance?

The total money for school fees is a challenge. What is the role of the state?

How can we ease the burden on households and get them out of the credit cycle?

How can we create a competitive marketplace for products that help schools manage payments?

How can we completely remove the onus of responsibility from the parent? How can the ecosystem step in?

How can we help teachers access their wages without sacrificing the experience of visiting a local town?

How can we make schools less expensive to operate?

Asking the right questions... rather than looking for solutions

Is anyone offering incentives for keeping girls in school?

How do we arrive at appropriate pricing of financial products for BOP?

How can the financial inclusion community play a role? We're not education experts, need guidance from education sector to develop useful products that make a difference.

Are we letting the government off too easily?

What are the biggest pain points in terms of reconciliation?

Are transaction fees the main barrier for new collections and tracking systems?
What are the differences in price between the different payments options?

Where is the Ministry of Education in this process?

How can we encourage product development?

Stakeholder map

This stakeholder map outlines the stakeholders involved in digital financing for education. It helps to understand who the key stakeholders are and the role they have in the system.

INDIRECT

- Community leaders
- Local community
- Farmers
- Energy companies
- Water company
- Village elder
- Neighbouring communities
- Diaspora
- Private investors
- Global Partnership for Education
- UNICEF
- World Bank Education
- Digital content publishers
- Hardware manufacturers
- Software developers
- Insurance companies
- Education entrepreneur
- Researchers
- Media
- Future employers
- County Government
- Local chief
- Market traders
- Regulator
- NGOs
- Alumni

DIRECT

- Microfinance Institutions
- Banks
- Saccos
- Mobile phone companies
- Internet service provider
- Private tutors
- Bookshop
- Administrators
- Donors
- Charitable organisations
- Fintech companies
- Bursar
- PTA
- Student council
- Extended family
- District education officer
- Mobile payment platform
- Financing agent
- Mobile money agent
- Independent lender
- ROSCA Chairperson

- Ministry of Education
- Ministry of Finance
- Teachers Union
- Mosques
- Churches

- Religious charities
- Uniform suppliers
- Head teacher
- Teachers
- Library

- Family
- Parents & Caregivers
- Public school
- Private school
- Children
- Students

CORE



CGAP

Advancing financial inclusion to improve the lives of the poor



Global Affairs
Canada



BILL & MELINDA
GATES foundation



MetLife Foundation
Ensuring Access. Empowering Communities.



THE GOVERNMENT
OF THE GRAND DUCHY OF LUXEMBOURG



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