FINTECHS IN DEVELOPING COUNTRIES: OPPORTUNITY FOR INCREASED FINANCIAL INCLUSION

A Uganda Case Study

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INTRODUCTION

While in the United States disruptive technologies continuously drive change in financial markets, making them increasingly efficient, finance in other parts of the world including financial transactions, insurance and savings work entirely differently than we know it. But how does finance function in some of the poorest regions of the world? What technologies are used there? What are the differences in the financial ecosystem?

More importantly, we should ask the question: can technologies which are already developed be used to drive change in regions of the world where they are not currently utilized? What if an information barrier is preventing real change? What if technologies are out there but they are not used only because they are unknown to the population? **The US based nonprofit TEL was built on exactly that idea: to serve as a bridge between technology developers and communities in need by driving the adoption of innovative, cost-effective, and sustainable solutions that improve the lives of the least economically advantaged members of society around the world.**

This case study will attempt to answer those questions while focusing on the Financial Services industry in Uganda, one of the poorest countries in sub-saharan Africa. It will provide an overview of Uganda and its financial ecosystem and will identify key challenges and needs. Afterwards a technology solution for each of the following fields - *digital payments, lending, saving, insurance* and *retirement* - will be recommended. Furthermore, evaluation criteria will be presented to make an informed selection out of all the available Fintech solutions. Lastly a conclusion with recommendations on the concentration of future efforts will be provided.

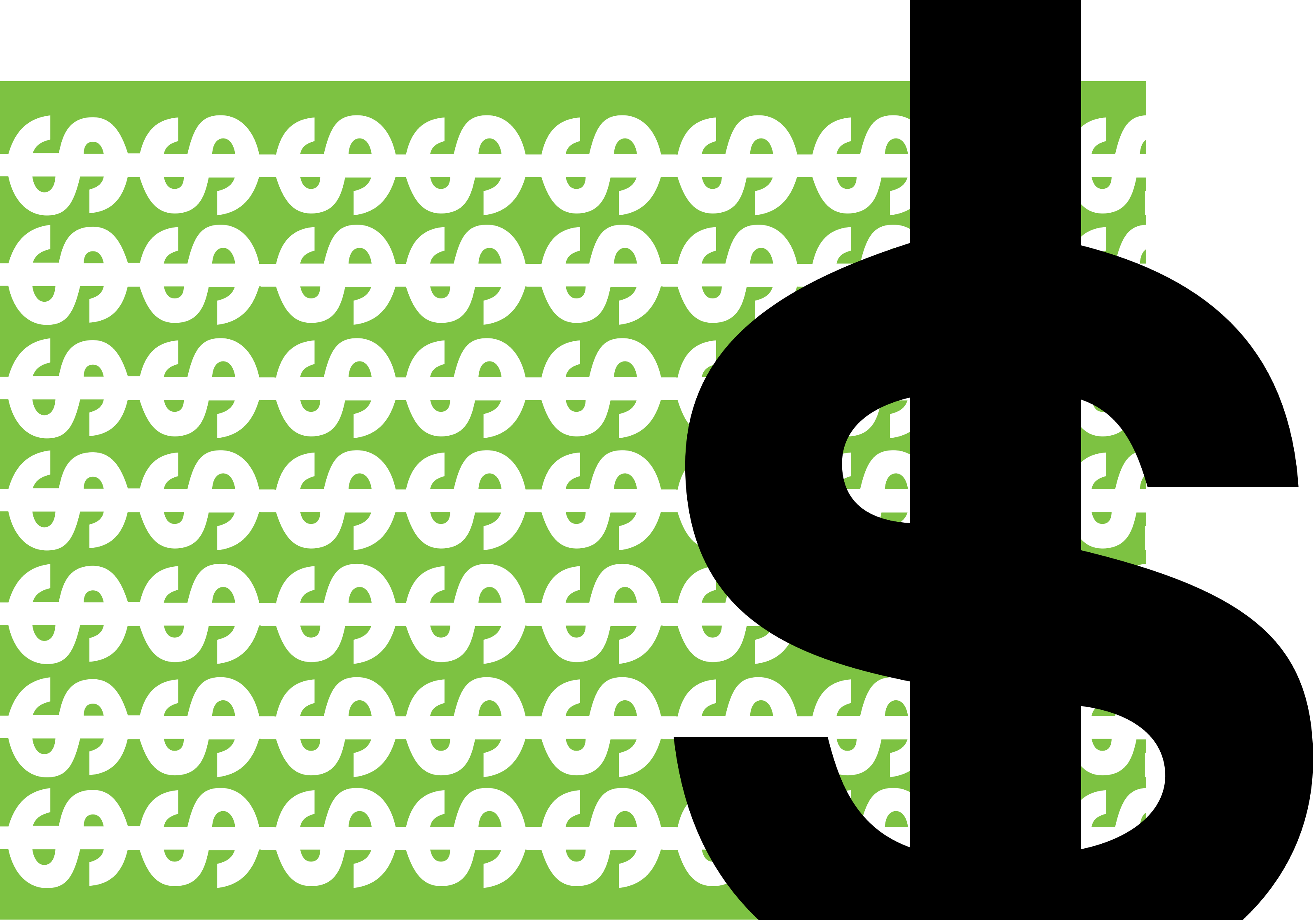
OVERVIEW OF UGANDA AND ITS FINANCIAL ECOSYSTEM

Uganda is located in Sub-Saharan Africa and has a population of slightly more[1] than 45 million, with a GDP per capita of just north of 800 USD . For comparison, the GDP per Capita of the United States was approximately 63,500 USD and the average in other sub-saharan African countries was less than 1,500 USD in 2020. The country's currency is the Ugandan shilling (UGX) with the current exchange rate being approximately 1 dollar for 3500 UGX.

In Uganda, 76% of the adult population lives in rural areas, and 70% have not achieved secondary levels of education. The driver of economic activity in the country is agriculture, with approximately half of the population relying on farming activities to finance their livelihoods.

In the year 2018 only 11% of the adults used banking services in Uganda, which is why personal finance works differently there than as we would typically know it in the West. A closer insight on different dimensions of the current state of personal finance is given below:

1 Worldbank



PAYMENTS

Mobile payments play an increasing role in the lives of Ugandans. In order to stay connected, 52% have mobile phones, though only 10% have access to the internet (In the US the figure is 93%). This is the result of many mobile phones not being smartphones, so there is not built-in internet connectivity. Additionally there is limited internet access outside of city centers, which is why for most online payment services like *Venmo* are not an option .[3]

Telecom companies give the opportunity to their clients to send money via SMS and deposit money through agents who also regularly visit the more rural areas, which gives access to mobile money without the internet. 57% of adults use this option to transfer digital payments; for the rest cash is king .

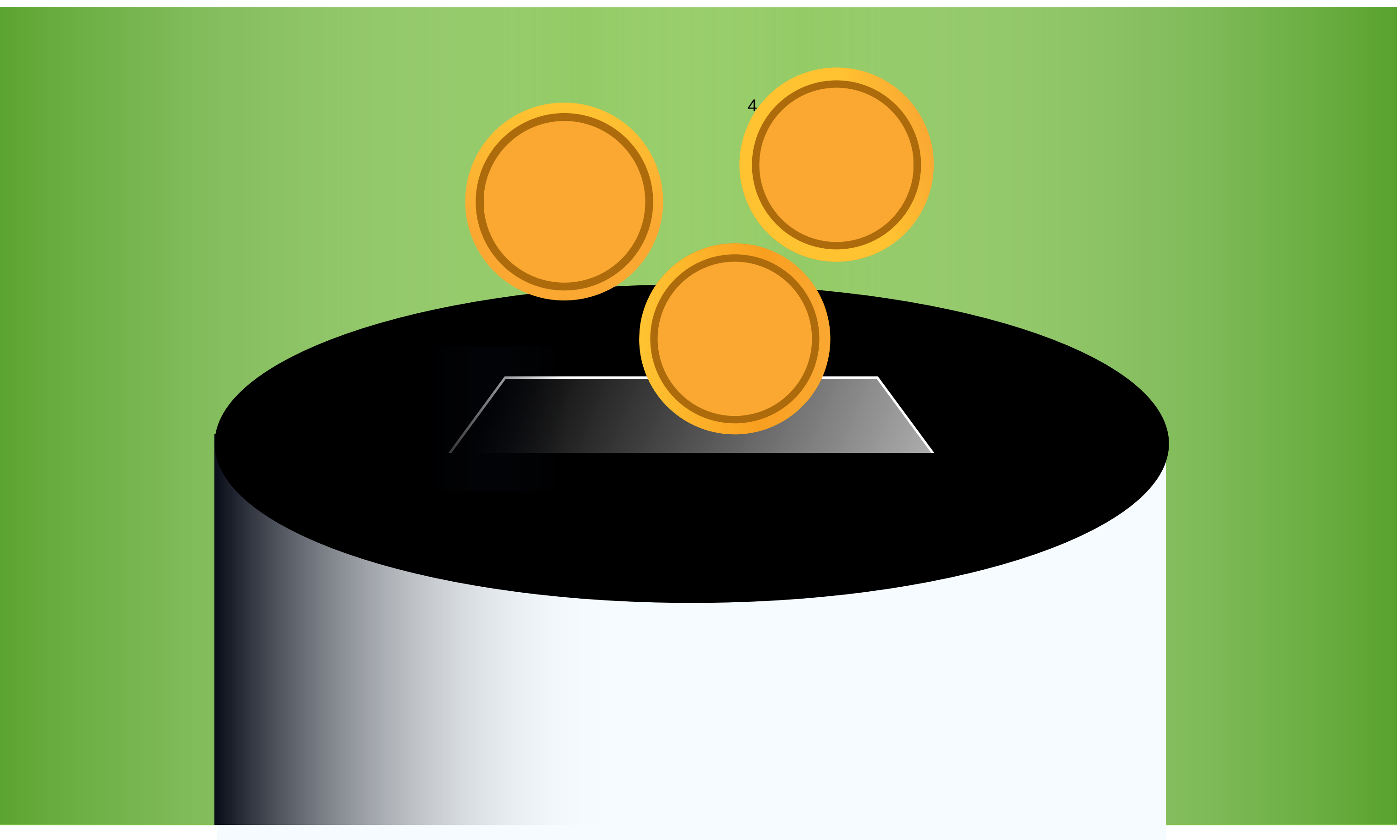
2 XE
3 Finscope Uganda Survey Report

SAVINGS

In Uganda, 46% of the adult population do not save because they do not have any income to spare at the end of the month. Of those who save, 34% save with formal financial institutions such as on their mobile phones, through commercial banks or microfinance institutions[4].

The majority saves informally through savings groups. Those savings groups typically consist of 15-25 members who operate and manage the funds. It gives the opportunity to save together in small amounts and make loans on flexible terms. Savings groups may also serve as a safety net in many poor communities and low-income households[5].

The primary motivation to save is to smooth cash flows and cover regular expenses in low-income periods. This is especially important given how unpredictable agriculture can be with one poor harvest or unexpected weather event spelling financial ruin. Ugandans think that the costliest life cycle event is children's education (Annually $50-150 for primary schools, $300-450 for secondary schools), which is also an essential driver of savings behavior[4].



4 FINSCOP Uganda Survey Report
5 State of Practice: Savings Groups and the Role of Government in Sub-Saharan Africa

LENDING

In the Finscope survey conducted in 2018, 46% of the respondents indicated they borrowed over the last 12 months, with the two biggest drivers being to cover regular expenses during low-income periods and to pay for unexpected costs such as medical bills and funeral costs. Most borrowed from friends and family instead of formal financial channels .[6]

INSURANCE AND RETIREMENT

Insurance coverage in Uganda is meager, with less than 1% having formal coverage since they cannot afford the monthly premiums. Many protect themselves though through informal means such as community health services or community-based savings[6].

A similar picture can be seen with retirement strategies where mostly informal means are common practice. According to the world bank, life expectancy in Uganda is 63 years. Most of the population worries mainly about how to cover short term expenses, which is why retirement strategies are not a popular topic. Of the people under 55, 20% do not have a strategy at all, 20% count on children to take care of them, and 25% plan to continue using farming income[6].

With the number of fintech companies being founded growing at 35% annually, the Fintech industry is trying to optimize the financial system and improve payments systems, borrowing networks, saving options, retirement planning, and insurance policies. The entrepreneurs are doing this through innovative technologies and, at the same time, enter the most profitable segments of the financial services value chain. This provides enormous potential for a significant increase in financial inclusion in Uganda. Over 70 Fintechs are currently operating in Uganda, and 60% of those have been founded there[6].

6 Finscope Uganda Survey Report

KEY CHALLENGES

One reason for the low level of financial inclusion in Uganda is the high costs of providing financial services, especially in rural areas. In poor communities, consumers typically generate less revenue since transactions are small and investment opportunities are limited. This dampens the incentive for financial institutions to operate beyond urban areas with low-income clients[7]. Nonso Oporum, founder of startup Soso Care, describes that often in rural areas there is also a mistrust against financial institutions which makes them reluctant to adapt to new financial services.

While a large percentage of the population are using digital payment services, the fees of traditional providers are still extremely high. The marketspace is crowded with many different providers and the transfer of money through a network of different providers is extremely expensive. Especially for small amounts, the fee can take up to 100% of the transaction volume.

Another challenge is limited financial literacy which could result from the low levels of education[8]. Product development engineer and finance expert, Matthew Hnatio[9],points out how crucial it is to educate people about alternatives to traditional financial services and increase awareness among the population that there are lower cost options.

One key challenge of providing formal financial services is the Know Your Customer (KYC) regulations financial service providers must comply with. This implies that in order to open a bank account identity proof and a residential address is required. The problem is that only 84% of Ugandans have valid documentation to prove their identity, and 15% have the required documentation, which serves as proof of residence .

7

Financial mechanisms, whether savings, borrowings, or insurance, are mainly based on regular and predictable cash inflows. The problem in Uganda is that most of the adult population relies on inconsistent and irregular sources of income. That makes it much harder to employ traditional financial products .

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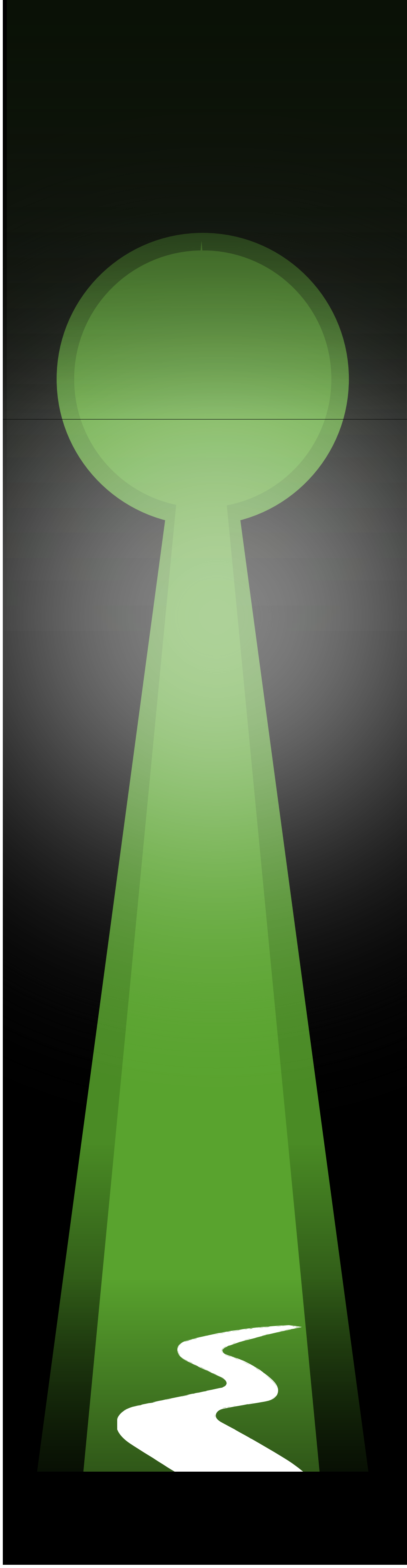


7 XE
8 FINSCOP Uganda Survey Report
9 He also serves as an advisory board member for Tel since January 2021.

POTENTIAL TECHNOLOGY SOLUTIONS

Despite the above challenges, entrepreneurs have already seized the moment and turned them into opportunities by developing solutions. In order to give an idea of available solutions for each of the financial dimensions: *Payments*, *Savings*, *Borrowing*, and *Insurance*, one technology in each area will be briefly introduced which addresses the key challenges described above. These were chosen for their respective sections because they represent incumbent players who are already successfully operating in Sub-Saharan Africa and truly exemplify the potential of the fintech space.

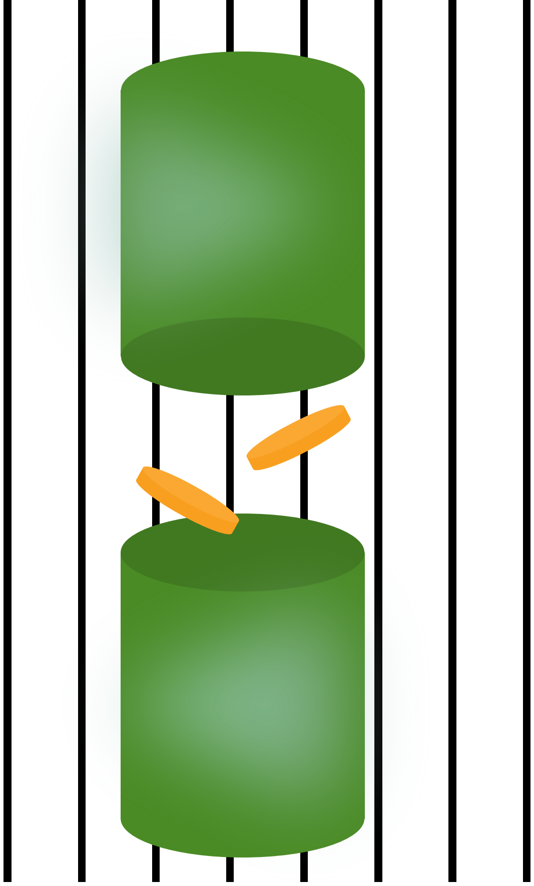
PAYMENT
EASYPAY

Easypay is one of the leading online payment providers in Uganda. Its clients benefit from lower transaction costs and a better user experience. One major advantage is that it is irrelevant what telecom network or financial institution you have for making payments. That reduces the confusion generated through the complex fee structures used by traditional providers and offers an “all in one” solution for electronic transactions[10].

SAVINGS
XENO

Xeno is an investment platform which first helps its clients through a survey to clarify their goals and assess their risk appetite. With a minimum investment size of just 10,000 UGX (~$3) people can start saving towards a child's education, an emergency fund, retirement savings, income drawdown or other goals. It is regulated by the capital markets authority in Uganda and already has more than 15,000 customers.

10 State of Practice: Savings Groups and the Role of Government in Sub-Saharan Africa



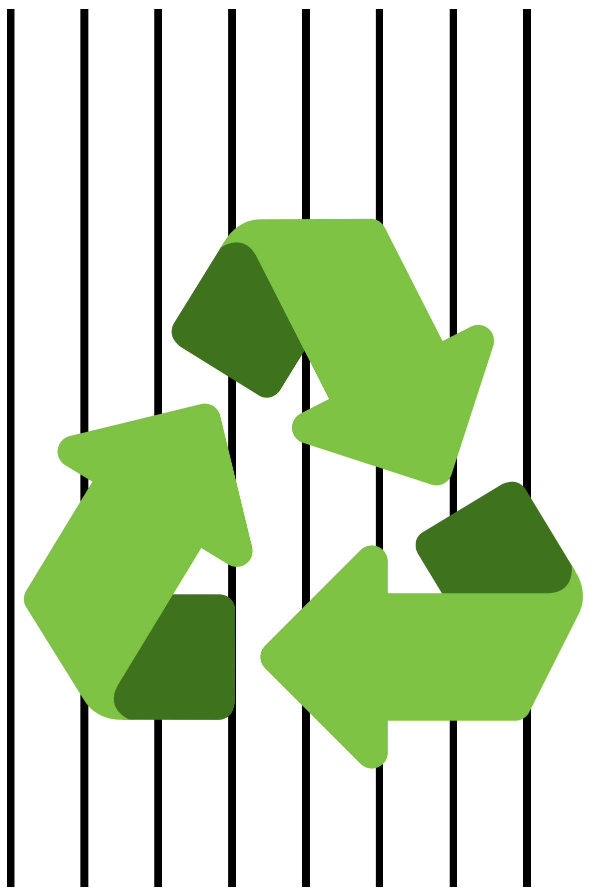
LENDING
EMATA

Ematas mission is to make farmer’s financing simple, available and affordable. The key differentiator between Emata and traditional lenders is that it installs a digital infrastructure with the farmers which allows them to track progress, make data-driven decision making, advanced credit scoring and optimized decision making. Since Emata utilized digital tracking it has a better overview about the operations of the farm allowing it to make instant and affordable loans available to smooth cash flow or increase productivity at the farms[11].

INSURANCE
SOSOCARE

Sosocare is a micro mobile health insurance startup that uses recyclable waste as premiums to cover for medical benefits. This Fintech is not dependent on outside funding and is therefore sustainable. The firm has collectors who also visit rural areas to pick up the waste. Given the kind and quantity of the waste the consumers get points and per month they have to achieve a certain amount of those points which act as the premium. All the resources needed to cover the medical bills can be afforded by Sosocare from the sale of this recycling waste. They are currently only active in Nigeria but plan to expand to other countries across Africa [12].

The four Fintechs introduced above are only a few out of a large pool operating in sub-saharan Africa. They are indicative of the potential Fintechs can have on the financial ecosystem.



11 Finscope Uganda Survey Report
12 He also serves as an advisory board member for Tel since January 2021.

ADOPTION OF FINTECH SOLUTIONS

With many different solutions, it can be challenging to find the best one for a specific community. Therefore general evaluation criteria can help make informed decisions on which Fintech to promote. We recommend evaluating based on Accessibility, Complexity, Benefits, Applicability, and Costs.

Most Fintech developments are app-based and require the internet, but as pointed out before, only 10% of the population in Uganda has consistent internet access. Even with the most innovative technology, it is useless unless people can actually use it. So one criterion on which solutions can be evaluated should be ***Accessibility*****.** The level of financial literacy is low in most communities, and the general mistrust towards financial solutions makes the implementation hard.

Therefore, the offered alternatives must be easy to use and understand, so you should also assess their ***Complexity***. New technology solutions should always be compared to the status quo. For example, concerning digital payment solutions, what is the actual percentage reduction in fees? Or how much can people save on a loan when it is verified digitally? That is why they should also be evaluated along with the metric ***Benefits*****.**

Furthermore, initially, the focus should be on solutions that not only benefit a small number of people but have broad benefits among the population. To find the solution which offers the highest cumulative help, the criteria ***Applicability*** is essential. The bottleneck for the realization of many great ideas is the implementation costs. Even with the most fantastic ideas, if there is not the necessary funding available to roll out the solution, it will remain a thought experiment, so ***Costs*** is a necessary evaluation point.

CONCLUSION

Uganda offers various opportunities for Fintechs since they display a large unmet market with an incredibly young population whose life expectancy is increasing and offer a lot of potential. Incumbent players already have a significant advantage compared to higher-income markets: Once consumers are convinced of a solution, they usually stick with it.

The general business environment for Fintechs to operate has drastically improved during recent years: A better infrastructure, increased connectivity, and the availability of funding. Most importantly for the people, digital financial services have the potential to increase their financial security and offer more stability in their lives:

- New **digital payment solutions** allow customers to receive and send money at a lower cost and have a secure way to store their money.
- **Alternative lending** platforms allow people from rural areas to borrow without collateral and extensive credit checking. That helps smooth fluctuating cash flows and afford lifecycle investments.
- **Insurtech** start-ups can introduce sub-Saharan population insurance products to enable them to live a more secure life and protect them against uncertainties and vulnerabilities.
- Innovative **saving solutions can** help people with low income save small amounts steadily, giving them resources during more challenging times when, for example, farming income is lower due to unforeseen weather conditions. Furthermore, it gives them the ability to profit from capital market returns.
- Fintechs offering **micro pensions** grant last-mile communities the opportunity to prepare for retirement and offer security given the increased life expectancy and decrease the dependence on the following generations for income.

The most critical challenge to implementing innovative solutions is the **lack of financial literacy** and **access barriers**. Therefore, both nonprofits and Fintechs alike should focus first on education campaigns in the more rural areas. Those campaigns should inform the people about the solutions and platforms which are available. An ideal partner for this is TEL, who has experience in working together with communities in Uganda.

None of this will be possible without a concerted international effort to increase internet access and availability of smartphones since most solutions are web or app based making them inaccessible without an internet connection. In order to solve this problem, we have to count on great innovators to find more offline solutions and invest in a better infrastructure so that even in rural areas the availability of internet connections increases.

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