

# Savings at the Frontier

## The business case for linkage with informal savings:

Can informal savings mechanisms be sustainably linked to formal finance in ways that work for all parties involved?

**Constantin Albot and Stephen Peachey**

June 2022



This note summarises practices and lessons learned from the Savings at the Frontier (SatF) programme on providing funding and technical assistance to financial service providers (FSPs). SatF is a US\$ 17.6 million partnership between the Mastercard Foundation and Oxford Policy Management (OPM). The note outlines our analysis of the emerging business case for linkage and our partners' experience in delivering solutions to informal savings mechanisms (ISMs) and their users. We hope that this note will be useful for private sector practitioners and donors who are interested in designing commercially sustainable approaches and solutions for serving informal savers. It also includes four case studies showcasing the experience of some of our partner FSPs in more detail.

### Acknowledgements

The authors would like to thank and acknowledge the support of a number of individuals whose contributions made the publication of this note possible. We are particularly grateful to the FSP partner team members who helped us firm up the case studies in the right level of detail, more specifically Godfrey Mbilinyi (Tanzania Commercial Bank), Abednego Darko (DSS Platform), Mwansa Kabaso (Madison Finance) and Mahmoud Shoo (BizyTech). We would also like to thank the other members of the respective teams, as well as those of the other FSP partners, whose contribution and openness throughout the implementation of the programme offered valuable insights on project delivery and allowed us to capture the necessary information for the analysis in the note. We are also grateful to the SatF team for their continuous support and technical feedback that made this final note a much better product. Specifically, we would like to extend our thanks to Robert Stone (Strategic Adviser), Janet Hayes (Team Leader), Hanna Laufer (Monitoring, Research, Evaluation and Learning Lead), John Balaba (Fund Manager) and Alfred Sloley (Programme Manager) for their feedback on earlier drafts of the note.

### Introduction

This note is being written at the end of Savings at the Frontier (SatF), an experimental, private sector provider-led programme that ran from October 2015 to June 2022. The note reflects on how well the programme delivered on one of its key objectives: finding the business case for linking formal financial service providers (FSPs) with informal savings mechanisms (ISMs). The programme offered funding and technical assistance to help selected FSPs develop relationships with ISMs, such as savings groups and their users, in order to complement existing/traditional practices with formal financial and non-financial services. Central to the approach was the principle of a 'triple-win' business case: the value offer developed by FSPs had to be commercially sustainable, work for individual users of ISMs, and preserve/enhance the social capital and benefits that ISMs bring to their members and communities. This note will focus on the first of these 'wins', the commercial sustainability for the FSP, i.e. the business case for linking FSPs with ISMs.

ISMs are a common and important part of daily financial life at all levels of society across much of the world and are prevalent in Africa. Their use often equals, and sometimes surpasses, that of formal financial services for saving or borrowing. Most adults in Africa, however, still rely on close domestic mechanisms (inside the home or among close family and friends, plus maybe a local shop) to save and/or borrow, although mobile money has started to mean formal transactional finance is becoming more popular than most of these mechanisms.<sup>1</sup>

The Mastercard Foundation has been supporting non-governmental organisation (NGO)-facilitated models of village-level group saving and borrowing for a number of years but was interested in finding out whether formal FSPs could be encouraged to find a business case for linking up with ISMs without harming the social capital they bring, while at the same time making formal finance more accessible and useable to the kinds of people who rely on those mechanisms to meet day-to-day savings and borrowing needs. In order to find out, in 2015 the Mastercard Foundation engaged Oxford Policy Management (OPM) in a partnership to work with

---

<sup>1</sup> Calculations using Global Findex 2017 Microdata from A. Demirgüç-Kunt, L. Klapper, D. Singer, S. Ansar, and J. Hess (2018) 'The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution', World Bank, Washington DC. Ref: WLD\_2017\_FINDEX\_v02\_M (online), available at <https://microdata.worldbank.org/index.php/catalog/3324/get-microdata> (accessed 23 May 2022).

formal providers to test different linkage business models. By then, digital finance was increasingly becoming well established in all three countries where SatF was to operate—Ghana, Tanzania, and Zambia—and agent networks were spreading. There was also an industry-wide sense that business opportunities were being missed by not engaging with a mechanism that really did reach right across the socioeconomic spectrum.

This note tells the story of how OPM took the Mastercard Foundation's partnership approach to the SatF programme and expanded it to work with 10 formal providers across the three countries, testing a mix of banking, microfinance, and fintech models. It starts with establishing the context of those partnerships and the choice of formal FSPs that made up the SatF portfolio. It then describes the way funding was deployed and how much was spent on experimenting with different models of delivery, on investing in platforms to support delivery, and ultimately on de-risking the scaling up of delivery in its pre-commercial phase. The note reviews, separately, how revenue was built and the degree to which (with the benefit of hindsight) that revenue could now be said to justify the investment the Mastercard Foundation/OPM partnership made in taking the different models to market. It also offers case studies showcasing the experience of four of our partners—Tanzania Commercial Bank (TCB), the Daresh Susu Savings (DSS) Platform, Madison Finance (M-Finance) and BizyTech—in more detail.

Overall, SatF has shown that there is a value proposition for linking formal FSPs to ISMs, and a strongly commercial case can now be made for this for some models. All SatF partners needed quite a significant subsidy to enable the required experimentation with the models they deployed, and the commercial case is nuanced. This being said, the case is beginning to emerge strongly in enough contexts for it to be worth the finance industry taking ISMs seriously as a potential route to reach millions of under-served customers and to engage with them in value-enhancing ways.

### The SatF context

The three countries where the programme operated—Ghana, Tanzania, and Zambia—are significant from a business case perspective, as each market had different experiences with linkage before the start of SatF. Tanzania had benefited from significant donor support, both in terms of savings group facilitation and in terms of FSP linkages. Ghana had some experience of linkage through the Banking on Change and UN Microleads programmes. Zambia was at a very early stage in the development of linkages. The three countries also differed in terms of where ISMs tended to be found and the forms they took, their customer characteristics, their respective levels of digitisation, and the penetration of financial services. All these factors had a bearing on the efforts FSPs needed to make to reach and serve ISMs, as well as on the revenues that could be derived to make their value offer sustainable.

By the time SatF started working in-country, the Global Findex 2017 showed that one in five adults in Ghana and Tanzania were using some form of structured ISMs and borrowing mechanisms outside the home. In Zambia, this proportion was almost one in four adults. This roughly matched the proportion of adults using formal financial institutions for savings and/or borrowing purposes (12% in Tanzania, 26% in Ghana, and 23% in Zambia).<sup>2</sup>

To maximise the innovation potential of the programme and to support different approaches to serving ISMs, SatF sought to partner with various types of FSP.

---

<sup>2</sup> <https://globalfindex.worldbank.org/>.

**Figure 1: SatF partner FSPs**



We wanted to work with institutions traditionally interested in the low-income market, but also to harness the disruptive potential of fintechs and to back partnerships that would exploit the increasing capabilities and reach of digital financial services. As a result, we opened the application process to a wide range of potential partners and we ended up with a portfolio consisting of four commercial banks, four fintechs, and two microfinance institutions (MFIs), which in turn partnered with other FSPs (e.g. mobile network operators (MNOs) and financial institutions at different tiers) and non-financial institutions (e.g. international NGOs and NGOs) to develop robust linkage solutions. Figure 1 shows the partners, split by country and type.

The primary objective of our business case analytics was to see if a business case could be established based on accumulated savings (i.e. float) for banks and MFIs, and on various monetisation options for the flow of funds for fintechs.

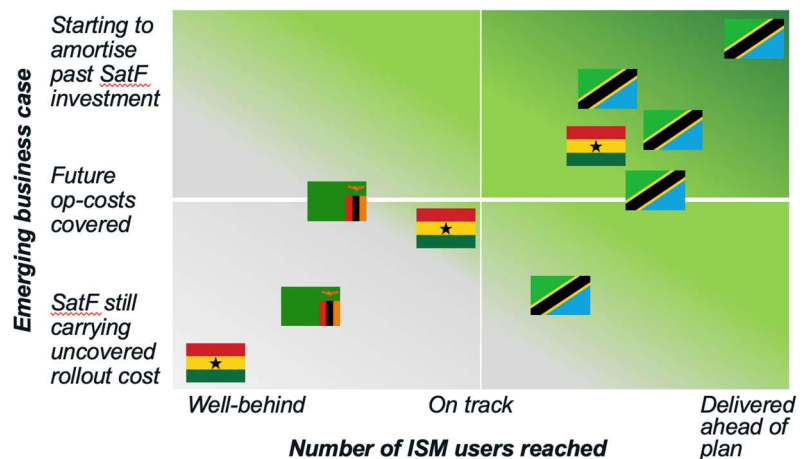
Four of SatF's partners in Tanzania (three commercial banks and one fintech) and one Ghanaian partner (a fintech) ended their engagement with SatF ahead of schedule based on the number of customers being signed up and have since moved beyond covering core operating costs. These five are indicated by their national flags and appear in the top right quadrant of Figure 2.

The two other fintechs that SatF worked with are broadly on track in terms of customer sign-up and are approaching, but have not yet achieved, breakeven on operating costs, whereas one Zambian (microfinance) partner is close to making operating breakeven but on smaller customer numbers than originally anticipated. These three appear at points where the background shading is turning from grey to green.

Finally, two partners faced difficult local and internal (organisational/approval) challenges and are not yet anywhere near targeted numbers, so the business case has not had a chance to establish itself. They remain confident, however, that they can make their models work, not least because of what they have seen happen with other SatF partnerships. None of the SatF partners are talking about abandoning the market.

Although we also recognise that cross-sold services such as credit, insurance, or pensions can add to the business case calculations, we did not take them into account, even though the programme did support them in some projects. We chose not to take them into account because our main objective was to establish whether a business case could be established on the basis of trusted relationships between FSPs and ISMs (and their users) for the safe storage and use of individual or group savings, as a result of which cross-selling

**Figure 2: Portfolio overview**



other services (if it were to happen) would be a second-round opportunity rather than a primary justification for linkage.<sup>3</sup>

## Expenditure analysis

We began documenting the emerging business case by tracking partner expenditure. At the onset of each project, FSPs were asked to develop their own project budgets and workplans. These needed to be aligned with internal strategic objectives in order to avoid a situation where SatF activities might come into conflict with FSP priorities. Throughout the duration of the project, partners were required to submit quarterly financial, narrative, and data reports that allowed the SatF team to track progress against budgeted expenditure, as well as on how partners were moving towards their project targets and what obstacles (if any) they were encountering.

To make expenditure tracking comparable across partner institutions, the SatF team analysed each budget submission and allocated all expenditure lines into one of five pools:

- non-variable costs and core team overheads;
- volume-driven field costs;
- route-to-market expenses;
- upfront investment; and
- learning events and bilateral cross-programme exchanges.

Expenditure against these pools<sup>4</sup> was tracked alongside the regular FSP quarterly submissions, which provided useful insights into how the SatF funding was contributing to the partners' activities.

A typical expenditure profile is presented in Figure 3, although each project differed in terms of how much was allocated to each expenditure pool over time. Surrounding the typical profile in Figure 3 are thumbnail presentations of the different individual project profiles that show the phasing and mix of expenditure preferred by each partner.

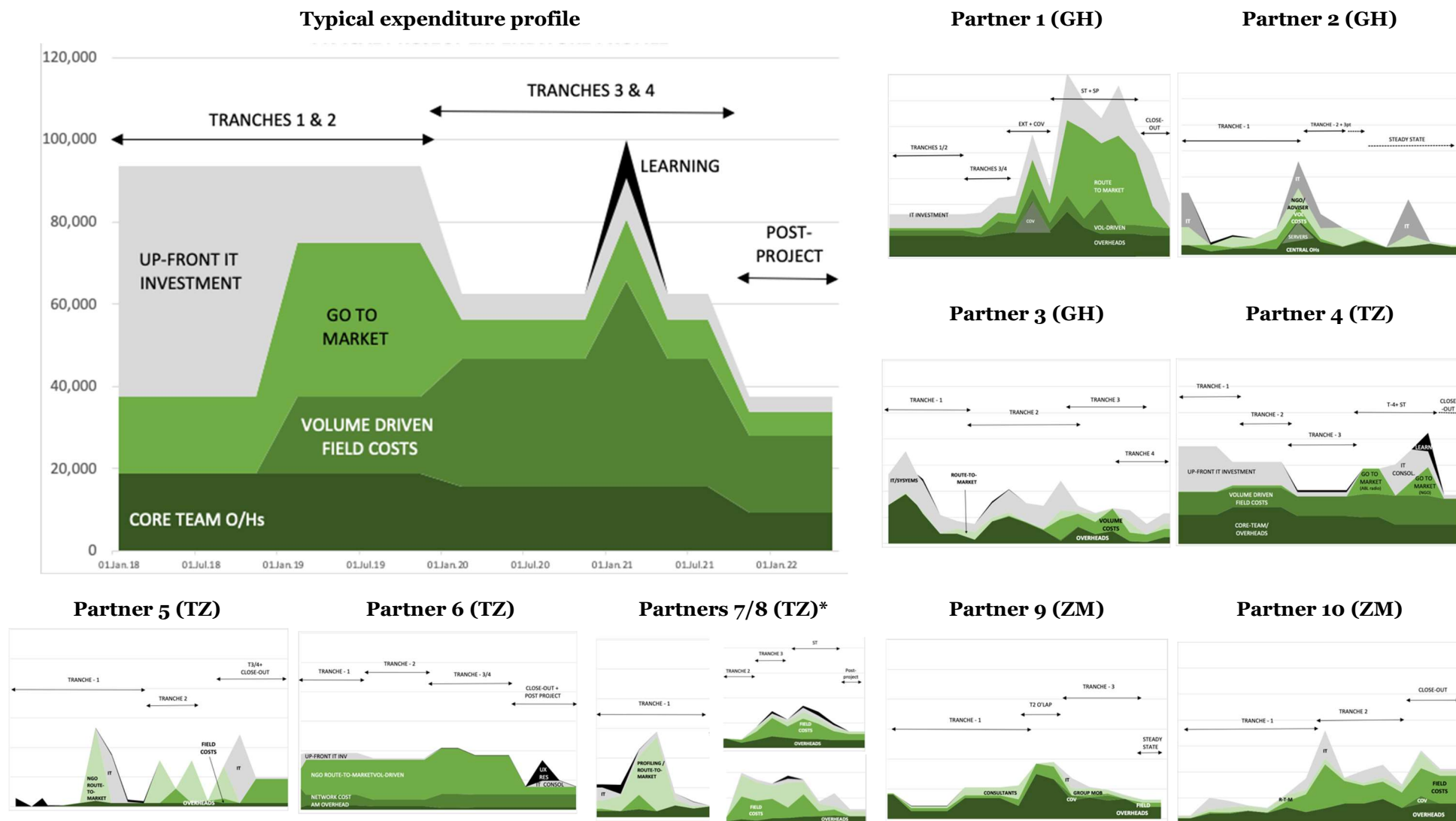
In the individual partner charts the numbers on the axes are not shown in order to protect commercially sensitive detail, but obviously during project tracking we were able to discuss actual amounts quarter by quarter. The broad patterns of expenditure without this detail are, however, still useful as a way of illustrating the wide range of choices SatF was able to accommodate across individual projects and over time. It is our judgement that this flexibility did not compromise the emerging business case, except where early stage investment took much longer to implement than planned.

---

<sup>3</sup> The offer of cross-sold services by partner institutions came in different forms and at different points during implementation. Additional work would be needed to factor this into the computations presented in this note.

<sup>4</sup> The expenditure items financed under each pool would typically include (i) core partner project team time and travel into the field, as well as any allocation of core IT platform costs or above-the-line marketing expenses (allocated as non-variable costs and overheads); (ii) field staff training, deployment, and technology, as well as onsite comms and below-the-line marketing (volume-driven field costs); (iii) engagement with NGOs and dedicated external consultants (route-to-market expenses); (iv) investment in core IT systems, as well as non-IT investment (upfront investments); and (v) any cross-project and other learning exposure (learning costs), which also included user research in some cases.

**Figure 3: Snapshot of partner expenditure patterns**



\*Two of our Tanzanian partners started out as a single project and split into two separate initiatives after Tranche 1. Their disbursement schedules followed the same pattern.

*Ex ante*, the general expectation was that Tranche 1 would cover the necessary investments to get the product solution up and running (i.e. developed and tested); Tranche 2 would be used for tweaks to the product but would focus more on route-to-market and developing internal capacity for launch; and Tranche 3 and Tranche 4 would be used as needed to support scale-up, at the same time dedicating some funds for learning purposes and, importantly, achieving a long-term steady-state delivery model that would allow the FSP to continue offering the product solution beyond the SatF timeline without requiring additional external financial support. In this way,

- the funding from SatF could act as a form of proxy special-purpose investment capital that the FSP could use to experiment with innovative forms of delivery, without having to pay any of it back; and
- the business case would be achieved if, by the end of the project, emerging revenue streams were sufficient (or on a trajectory) to cover the long-term steady-state operating costs of delivering linkage (although there were nuances as to how this might be judged, as explored in the next section).

In practice, due to the different starting position of each FSP, the main expenditure requirements differed between partners. In all cases, a combination of all five expenditure pools was used, but some partners focused more on developing IT solutions, some focused on building internal capacity, and others focused on external partnerships that would offer attractive routes to markets (such as NGOs). Nevertheless, the logic of working to develop revenue streams that would support the long-term operating costs applied. Depending on the type of FSP and the approach used, the post-project long-term operating costs varied between US\$ 25,000–US\$ 100,000 per quarter. The four case studies at the end of the note offer a more in-depth analysis of the costs, as well as of project conditions and emerging revenues, for four of our partners who were happy to share additional project insights.

### **Box 1: The promise card and a multi-tranche approach to fund disbursement**

The main phase of project implementation was governed by a two-way promise card tailored to each project, with a set of commitments from the FSP on one side to deliver against pre-agreed project targets, and from SatF on the other side to provide funding for required investments as they needed to be made or once specific milestones were reached. The promise card split implementation into several tranches (typically four). Tranche 1 and Tranche 2 were activity/output-based, meaning SatF would offer funds upfront for FSPs to develop and pilot their solution, and then either move to launch or refine their approach to address problems encountered during piloting. Tranche 3 and Tranche 4 were outcome-based, meaning SatF would release funds once pre-agreed targets in terms of users reached and activity levels were being met. This created a joint sense of ownership of the overall objective and facilitated a constructive dialogue between the SatF team and the partner FSPs. A more detailed description of our approach to the disbursement and management of funds can be found [here](#).

It should be noted that not all projects had the same funding envelope to work with. The initial allocations differed based on the proposals submitted, and by the end of the programme some high-performing partners were offered a ‘Super Tranche’ to continue unlocking the potential of their solution. In contrast, others who were not able to meet their targets for Tranche 3 and Tranche 4 did not receive all the funding originally allocated to them (which was instead allocated as ‘Super Tranches’ to other partners), and a more realistic scope of work was negotiated with them.

## **Tracking revenue build-up**

As our partners started taking their products to market, their quarterly reports began to include things such as accounts opened (for ISMs and individuals), activity levels, credit and debit transactions, and accumulated balances. This gave the SatF team an opportunity to discuss product performance in detail with the FSPs and to start modelling product revenue streams.

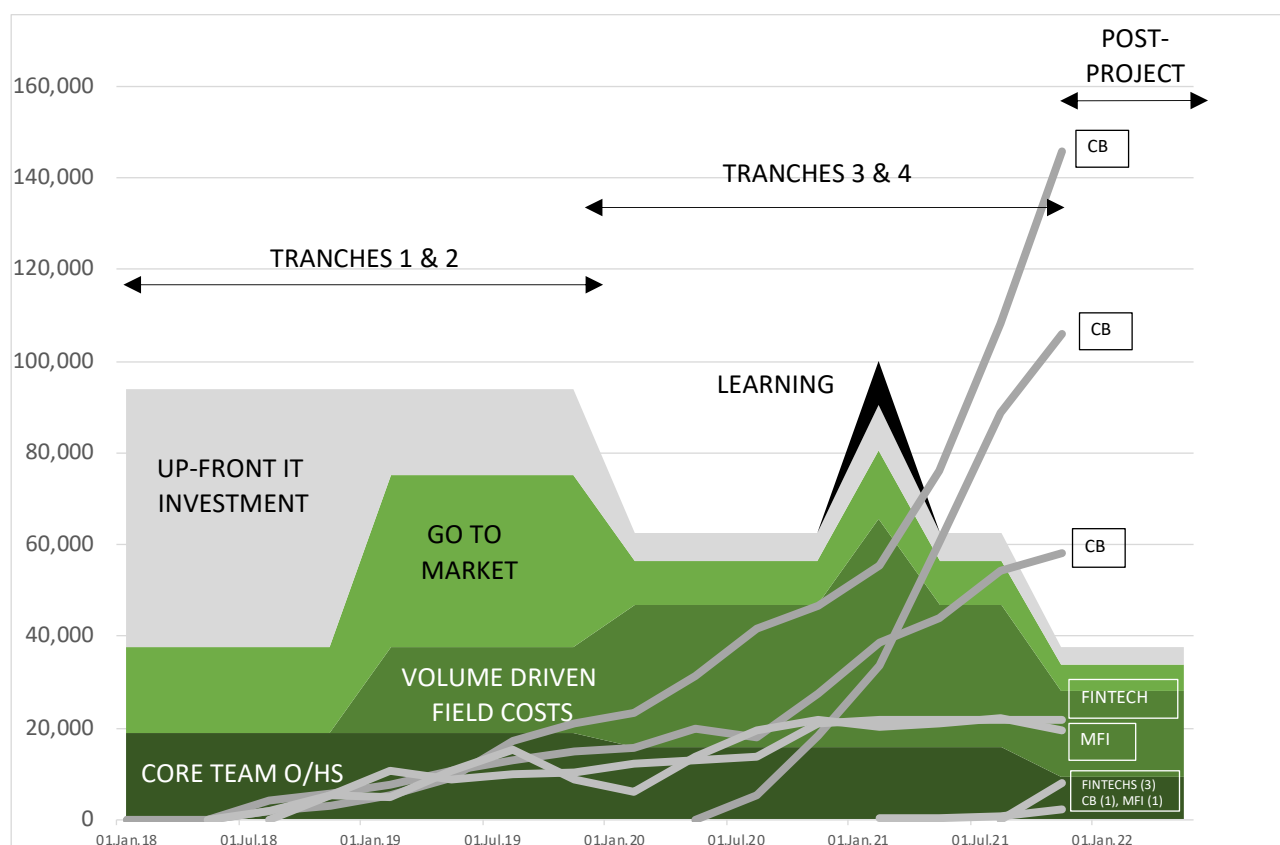
- For *banks* and *MFI*s, the main revenue drivers were the steadily accumulating balances on the FSP books quarter-on-quarter. We approximated revenue by allocating an interest margin that was the mid-point between the risk-free interbank rate and the prevailing market lending rate (both figures

differed country by country) and deducting the FSP specific interest rates payable on the ISM and user accounts respectively. We called this ‘income from float’.

- For *fintechs*, the calculations were tailored to each institution’s business model, based on discussions with the project teams, and sought to capture the ways in which FSPs were monetising (or intending to monetise) the value of what they were doing to enhance the ISM model. They were typically trying to do this by charging monthly subscriptions to providers using the platforms offered to reach ISMs/ISM users; collecting fees for the flow of funds passing over those platforms; looking for other potential partners who saw value and were willing to pay for the information accumulating on the platform; or through margins made on purchases by ISM users with funds built up via the platforms. This last element was generally seen as the best way, ultimately, to make a platform pay its way because it ties charging for platform costs to the additional benefits users get from their ISM being on the platform. Interestingly, splits with deposit-holding institutions of the float value of funds accumulating in bank accounts as savings build-up proved much harder for fintechs to negotiate.

The relative performance of the partners within the portfolio, as well as the main emerging trends in terms of revenue generation, are presented in Figure 4. The revenue analysis is based on data received up to the end of the final quarter of 2021. By that time, five of our partners were generating revenues that should fully or in a reasonable proportion cover core operating costs. The other five were either just starting to monetise operations (i.e. the three fintechs<sup>5</sup>) or had to delay going to market (i.e. one commercial bank and one MFI) and expected revenues to start accruing beyond the end of the programme.

**Figure 4: Emerging revenue streams**



Two key factors to keep in mind when analysing business case delivery are the **country context** and the **type of FSP**.

<sup>5</sup> One of the three fintechs in the bottom category managed to secure a consistent level of revenues beyond the end of the programme (starting in Q3'22), which allowed them to cover core operating costs going forward.

From a country perspective:

- it is worth noting that, in *Tanzania*, three of our partners were relatively well established commercial banks with a clear existing interest and presence in the sector. These became our three highest performing FSPs in terms of business case;
- in *Ghana*, a tightening of the regulatory regime drove a consolidation of Tier 1 and Tier 2 financial institutions that started in 2017 and created significant delays in the operations of the banks we were trying to partner with directly. It also cost us some potential partnerships; and
- in *Zambia*, the country-specific proximity and mobile network penetration issues, coupled with a particularly difficult experience regarding the COVID-19 pandemic, meant that adequately serving ISMs and reaching scale remained difficult. We have, however, seen some signs of accumulating balances where our partners were able to engage customers more effectively.

Importantly, in all three countries, our deposit-taking partners came to recognise the value of the stock of customer deposits built up as a result of ISM linkage (both from ISMs and separately from their users via linked individual accounts), as this was universally seen as providing a cheap source of financing compared to market borrowing. As already described, our fintech partners faced more challenges because they were trying to make income off flows over platforms, often by charging those who benefited from the build-up of data on, and purchasing power by, ISMs/users through those flows.

Overall, we found a clearer picture emerged when we focused on comparing the business case by type of partner (albeit nuanced for the different country contexts), than by looking for country-specific variations in business cases. This is a useful finding because it suggests that what follows probably has a relevance beyond the three SatF countries.

For *commercial banks*, it seems that a business case can clearly be found with an attractive customer value proposition and adequate capacity to reach and serve ISMs.

- All three of our Tanzanian bank partners developed a profitable linkage solution that more than covered operating costs, so we are confident the investment of SatF funds has created a sustainable business. These are the top three commercial bank revenue overlays schedules in Figure 4.
- Our Ghanaian commercial bank encountered several setbacks, first relating to obtaining the required operating clearance from the Bank of Ghana in 2017 and then relating to protracted internal approval processes. As such, they only managed to reach product piloting late in the programme. Revenues are expected to emerge beyond the end of SatF.

For the *MFIs*, the fact that both the institutions were *Zambian* meant they were impacted by the country-specific issues outlined above, while the following points should also be considered:

- SatF offered both MFIs an opportunity to meaningfully operationalise a deposit-taking licence, and the institutions saw balances steadily accumulate throughout the project (e.g. the top MFI overlay in Figure 4), although not in the amounts required to create enough income from float to fully cover project-related operating costs.
- Difficulties in the MFIs achieving scale mostly reflected the country-specific challenges to establishing linkage (the distribution of *Zambia's* rural population relative to mobile signal/agent outlets made it difficult for linkage to work well).
- Despite the overall challenges, a business case did seem to emerge (at least at branch/regional level) for branches and regions that took linkage seriously and found customers who could use what was on offer. One element of the business case was the very significant savings that could be made through not having to fund growing loan books of small cash loans out in remote rural branches by regular, secure cash-in-transit movements out from head office to the more remote branches.

For the *fintechs*, although their spirit of innovation and adaptivity was very high, establishing a sustainable revenue model that would work without further support was difficult even within the relatively long timeframe offered by the SatF programme.

- A strong positive is that our partners managed to start monetising some of their activities. One Ghanaian partner has already been able to cover its core business costs and keep investing in platform technical development with revenue coming in (the top fintech overlay in Figure 4) and one Tanzanian partner was able to sustain their platform and operations with revenues secured post project.
- For the other partners, relying solely on realised revenues to fund operations would mean tightening activities and staffing significantly, so they are looking for other sources of future support. There are multiple reasons for this, including:
  - the need to first establish sufficient credibility in the market to be able to create commercial relationships that work;
  - the need to have a big enough data set before the information about ISM users that fintech platforms can capture has any commercial value to other players operating in the same user space; and
  - the fact that the delivery model is not as established in all cases as for a formal financial institution, and therefore requires many iterations to get right.
- Models of sharing the value of float mobilised between the banks holding it and platform providers channelling the flows that create float were not well established and did not favour smaller fintech players.
- At the same time, end-users really pushed back on visible transaction fees on anything that they normally did in cash at no fee.

Nevertheless, the disruptive potential of high-performing fintechs cannot be understated, as demonstrated by the positive customer and partner feedback received for some of the digitisation initiatives we backed in both Ghana and Tanzania. Additional work is therefore needed to establish a model of support that might bring about a sustainable delivery of fintech ideas and approaches.

### **What we have learned: reflections on breaking even and supporting further investments by/into FSPs**

Establishing a commercial business case in a donor-funded project with a social objective is always difficult. We believe, however, that the SatF programme has established the business case for linkages between FSPs and ISMs. We have succeeded in using the Foundation's funding in ways that have allowed some cash-covering of the purely experimental or unrecoverable upfront investment required to go to market. At other stages, we deployed the Mastercard Foundation's funding as a form of proxy capital that could potentially pay back in ways that support future scaling up of the business without a need for further donor subsidy.

Three levels of business case were targeted:

- a bare *minimum viable proposition (MVP)*, where operating revenue covers the operating costs of mobilising savings (i.e. getting into the top half of Figure 2):
  - where projects reached, or were clearly reaching, the sort of scale originally envisaged, the MVP was generally achieved in time for programme end, or the projects involved are clearly on track to achieve it;
  - achieving MVP is more difficult where the SatF savings formalisation challenge was mixed with other operating needs inherent in partners' business models. We always knew that achieving full business case for both the last-mile delivery of agricultural inputs (and/or offtake of produce)

- and savings mobilisation among remote rural farming communities would be a challenge for our Tanzanian fintechs; and
- regulatory and/or internal delays were major contributing factors to two partners not achieving MVP because they significantly delayed route-to-market. The targeted numbers of groups and users to be reached were not therefore achieved, so the prospects of the business case emerging within the SatF time horizon timed out;
- a *self-sustaining new business line*, where operating revenue not only covers operating costs but also repeat bursts of route-to-market spend (i.e. getting into the top quarter of Figure 2):
  - the three Tanzanian partner banks are now safely in this bracket. Of the two Ghanaian fintechs, one appears to have achieved it on its original core business proposition for peri-urban linkage. One Tanzanian fintech also managed to achieve this with revenue streams secured beyond the end of the programme; and
  - in one case, we tried to expand the reach of a successful project through late-stage Super Tranches by making an effective peri-urban model more deeply rural. We were not able to achieve this within the short remaining timeframe available. With the benefit of hindsight, it might have been better to focus on building on proven success, but that was difficult given that existing business was beginning to look profitable and needed to start attracting commercial capital without subsidy; and
- at the highest level, a *new business line beginning to amortise past investments* (i.e. right to the top of Figure 2), where operating revenue not only covers operating costs and repeat bursts of route-to-market expenses, but also starts to amortise the upfront investments made with SatF funding to get the linkage platform established:
  - two of our three Tanzanian banks are already achieving this and the third looks to be on track to do so within the internal five-year time horizon originally planned for business case to emerge;
  - one of our Ghanaian fintechs is also close to this position for its core peri-urban business in terms of the operation of the main platform, which is now self-sustaining and self-renewing in terms of the technology; and
  - none of our projects will fully amortise all the early upfront experimentation around the route-to-market. This is not surprising as it was project-specific learning that needed funding but also has value for a wider audience (e.g. partnering NGOs), and was effectively bought as much for them as for the particular FSP(s) concerned. All the learning from the SatF programme is available at [www.opml.co.uk/projects/savings-frontier](http://www.opml.co.uk/projects/savings-frontier).

## Conclusions

We have supported a mix of partners in terms of type of FSP and business model. Our partners also used different combinations of expenditure to develop robust product offers to serve ISMs/users and to expand the reach of their financial services. The main uses of funds tended to focus on developing IT systems, on building internal capacity to serve the target market, and on partnerships to deliver route-to-market opportunities. The collection of data was essential to our ability to track costs and revenues, and we dedicated significant efforts to ensuring their accuracy and timeliness. This gave us a real-time representation of project performance and enabled us to have proactive communication with FSPs, which created a genuine sense of partnership and informed any need for adaptation in our approach to project delivery. For a programme like SatF, the importance of detailed expenditure tracking beyond just project budget monitoring cannot be understated. We often had to work with partners to dig into expense management data below the level of the quarterly reports created for us, which often involved repeat

engagement and required dedicated and extra resource beyond the normal project management costs associated with more basic challenge funds.

In all cases, our funding served as proxy special-purpose investment capital that the FSP could use to experiment with innovative forms of delivery. By the end of the programme, it had become clear that such a subsidy can help develop a value proposition for linkage, and a clear business case has emerged for five of our 10 partners (three banks and two fintechs), with another MFI in a position to cover a good proportion of operating costs, even if not in full. The three banks can now not only sustain operating costs, but are also able to cover future bursts of route-to-market expenses; two of them are even in a position to start amortising the upfront investments made with the help of SatF. The two fintechs can now clearly self-sustain their platforms, which are the backbones of their core operations. Where a commercial business case has not yet been made, the main reasons stem from deposit-taking institutions facing obstacles preventing them from reaching the required scale and fintechs not having a developed enough business model to adequately monetise the information about ISM users being generated by their platforms.

Overall, we believe that SatF has provided a solid evidence base for how a commercial business case for linking FSPs and ISMs can emerge. The success that some of our partners have achieved shows that, under the right conditions, this can really become a sustainable mass market proposition. However, the importance of experimentation cannot be understated; all our partners needed the space SatF created for them to get innovative ideas off the ground and tested in the market. The partners also needed the organisational capability to innovate and SatF conducted research on the organisational drivers of innovation, the results of which are reported in a paper entitled ‘What drives innovation in retail finance? Insights from Tanzania and Ghana’ which can be found at [www.opml.co.uk/projects/savings-frontier](http://www.opml.co.uk/projects/savings-frontier). The remaining challenge for FSPs is to keep improving their value offer for last-mile savers by using data and customer engagement to better understand and respond to their very real needs.

### Case study 1: TCB

TCB’s project with SatF was granted funding of US\$ 1 million for the main project phase, with a US\$ 300,000 top-up added as a Super Tranche.<sup>6</sup> Initially, the project sought to improve the link between TCB’s Group Mobile Platform and the Popote individual mobile account. This was to be achieved through the purchase of an in-house mobile banking gateway to gain control over pricing and through the deployment of a cadre of local trainers to facilitate ISMs in selected regions before scaling up nationally. The offer, based in TCB’s Cash Management System (CMS), was working well for ISMs/groups but did not get much traction at the individual account level due to USSD charges for using the TCB short code, over which the bank had no control. This brought about a significant adaptation in TCB’s ISM linkage strategy; they partnered with Vodacom Tanzania to develop M-Koba, a self-forming wallet-based group account (Box 2), which was added to their existing CMS offer. The joint CMS-M-Koba offering was the focus of the main project phase, while the Super Tranche added enhancements to allow CMS accounts to operate on the M-Koba platform and for TCB to pursue a specific focus on youth groups via a partnership with Plan International.

#### **Box 2: M-Koba, a partnership between TCB and Vodacom Tanzania**

M-Koba is a digital platform housed on Vodacom’s M-Pesa mobile money menu and which allows users to self-form into groups and save money easily, securely, and transparently using their mobile wallets. TCB is the bank at the back end of M-Koba; it houses all accumulated funds and is responsible for the clear allocation of savings, interest, and loans among group members via its CMS. M-Koba enables users to self-select into one of two types of ISM: a ‘Village Savings and Loan Association’ (VSLA) option for facilitated groups (such as VICOBA, VSLAs, etc.) and a ‘Family’ option for families and friends pooling their money together for a specific purpose. Group-to-member and member-to-group transactions are free for all M-Pesa customers and, after a positive market reaction post-launch, the product is being enhanced to allow for interoperability among all major MNOs.

---

<sup>6</sup> Super Tranches were additional funding given to high performing partners to continue developing their solutions.

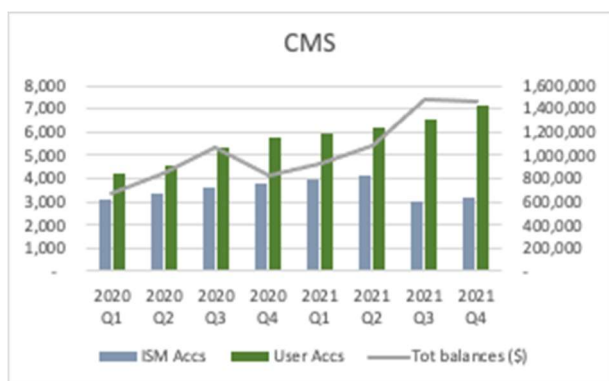
Table 1 offers a snapshot of the performance of CMS and M-Koba accounts as at the end of Q4 2021.

**Table 1: Snapshot of product performance as at the end of Q4 2021**

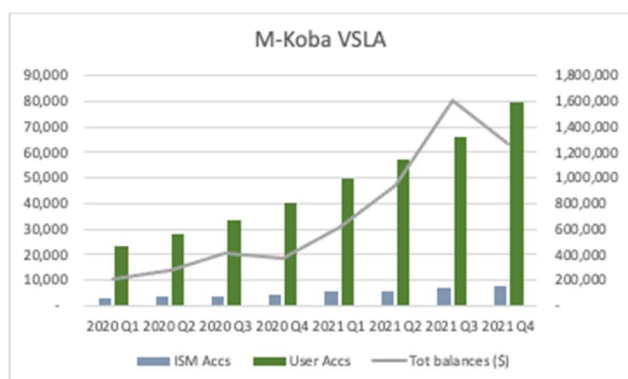
	CMS	M-Koba VSLA	M-Koba Family
ISM accounts (no.)	3,176	7,735	25,097
ISM accounts 6m activity (%)	64%	46%	59%
ISM accounts total balances (US\$)	US\$ 1,188,904	US\$ 1,267,380	US\$ 3,381,821
User accounts (no.)	7,149	79,404	282,909
User accounts 6m activity (%)	100%	31%	34%
User accounts total balances (US\$)	US\$ 279,526	Not measured separately—mirrors ISM balance	

Figure 5, Figure 6, and Figure 7 present the accumulating of ISM/user accounts and accumulating balances, which have been collected and analysed on a quarterly basis.

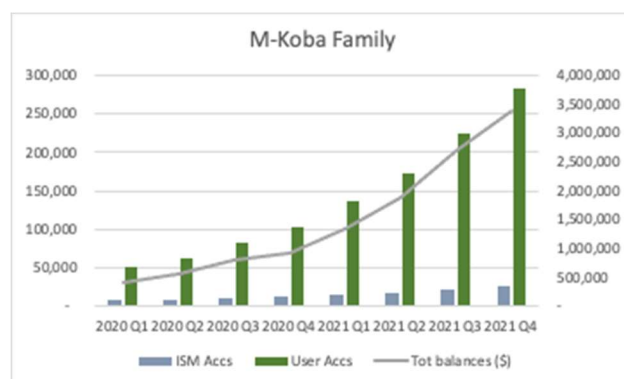
**Figure 5: CMS**



**Figure 6: M-Koba VSLA**



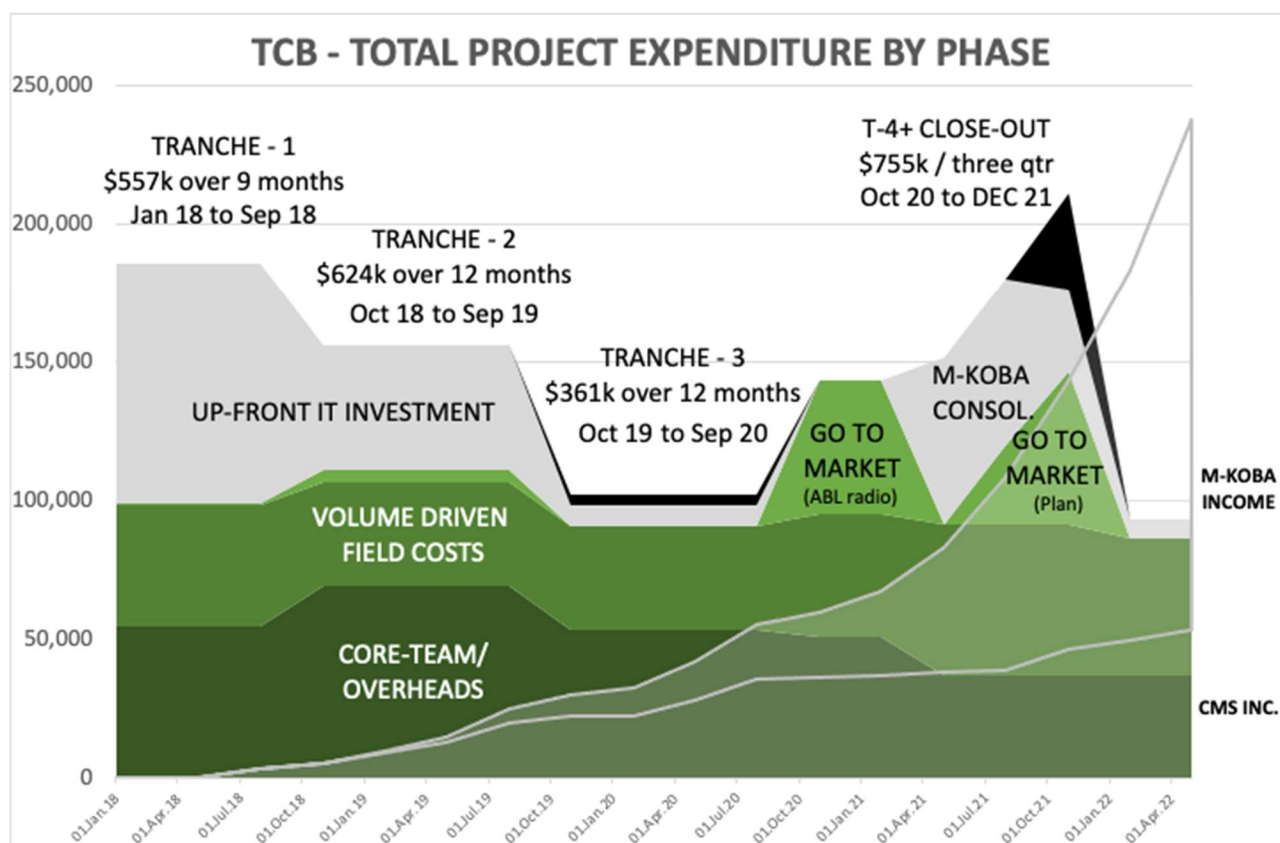
**Figure 7: M-Koba Family**



Based on the methodology described in the main section of the note, we were able to superimpose the emerging revenues onto the project costs and make reasonable projections for the last two quarters of implementation. This is presented in

Figure 8.

**Figure 8: Emerging revenues versus project costs**



The TCB project started with quite a traditional approach to replicating the facilitated VSLA linkage model traditionally run by NGOs, but this time with the bank recruiting local trainers to support groups. It had some success in signing up groups, most of which remain active, but had very little success in getting group members to open a linked mobile banking account. A major problem with this was the USSD charges referenced above: in finding a solution to that problem, the bank made a partnership breakthrough with the local leading mobile money operator. This resulted in an entirely new, low-touch and purely digital model for supporting collective saving that has a value proposition that extends way beyond accumulating, VSLA-type group saving. The platform (M-Koba) can support VSLAs and has reached significant numbers of clients that way (and mobilised US\$ 1.5 million of float balances). The really explosive growth, however, was in self-forming 'Family' groups, where individuals with some sort of social link saved together for a common purpose. This has reached over a quarter of a million individuals and mobilised more than US\$ 3.5 million in float in under two years.

As a result, TCB has achieved elements of all three business cases:

- the original CMS linkage concept has reached a minimum viable status and the bank remains very committed to a modified version of it. Elements of M-Koba are being integrated with it to try to improve user uptake;
- M-Koba for VSLAs is a self-sustaining new business line that can now self-fund repeat bursts of route-to-market expenditure; and
- M-Koba overall is now rapidly paying back on the upfront systems investment that created the whole platform for TCB's linkage business.

The bank, through the same partnership and using some of the same technology, has also separately created an overdraft facility for mobile money wallets called Songesha that is extremely profitable, although not treated here as part of the core business case for linkage.

## Case study 2: The DSS Platform, Ghana

DSS received approval for an initial US\$ 500,000 project with SatF to scale up the work of their fintech spin-off, DSS Platform, which provides services to susu collection enterprises deploying a widespread West African ISM model that is popular with informal business savers in Ghana (see Box 3 for more details). SatF initially restricted the flow of funding to small equal transfers every two months. After 15 months (mid-2019), we accelerated the flow of lending and by early 2020 agreed a US\$ 300,000 project extension plus US\$ 50,000 COVID-19 support to maintain the progress that was already clearly being made. Finally, from end 2020, a Super Tranche and special side-project funding worth US\$ 790,000 was provided to make the model rural. In total, DSS received more than US\$ 1.6 million.

Any project marketing a solution that tries to regularise owner-operated businesses working on the frontier between the formal and informal economy (let alone the frontier between formal and informal savings) is bound to face challenges. The solution was designed to close out opportunities for fraud at individual collector level (under-recording of savings, collectors disappearing before rolled-up losses could be discovered, etc.). It became clear, however, that mismanagement of funds by enterprise owners was at least as big a challenge, not so much as a result of gross fraud but because of poor paper-based accounting and uncontrolled investment in illiquid assets. When withdrawal requests overwhelmed a fraudulent or incompetent collector, enterprises struggled.

### Box 3: Susu collection in Ghana and the DSS Platform

Susu collection involves a collector visiting a saver every day with a target amount to be saved each day and the option of a whole month's saving being returned at the end of a monthly cycle, less one target day's saving that gets retained as a fee. This business is regulated in Ghana by the Ghana Cooperative Susu Collectors Association (GCSCA),<sup>1</sup> mandated by the Bank of Ghana to license and collect regular monthly reports from registered susu collection enterprises. At the time SatF started working in Ghana in 2017, we had no up-to-date publicly available sources of information on how many adults were using susu collection as a way of saving, but in retrospect it now looks as though that figure was somewhere approaching a million.<sup>2</sup>

The SatF-funded project aimed to build on a self-developed hand-held collection tracking system designed around regularising a multi-generational family susu-collection business (DSS), but was being marketed to other providers as well and promoted to GCSCA. The chosen route to market was via a standalone spin-off fintech (the DSS Platform) that SatF would help formalise and would fund scale-up of the solution as long as it operated within the regulated space created by GCSCA. The platform was marketed to a number of susu enterprises, first of all in the Tema district of Greater Accra.

<sup>1</sup> SatF funded a separate support project to help GCSCA with the regularisation of the reporting system.

<sup>2</sup> According to GLSS-7 and Global Findex, both sampled in 2017 but published in 2018. Findex suggests that 18% of adults aged over 15 (or 3.4 million people) were saving in some form of collective mechanism; GLSS-7 suggests 7% of the whole population (or 2 million people) were using a mixture of savings and loan groups, credit unions, cooperatives, and susu schemes to save. Susu users accounted for just over 40% of this group (or at least 800,000 people).

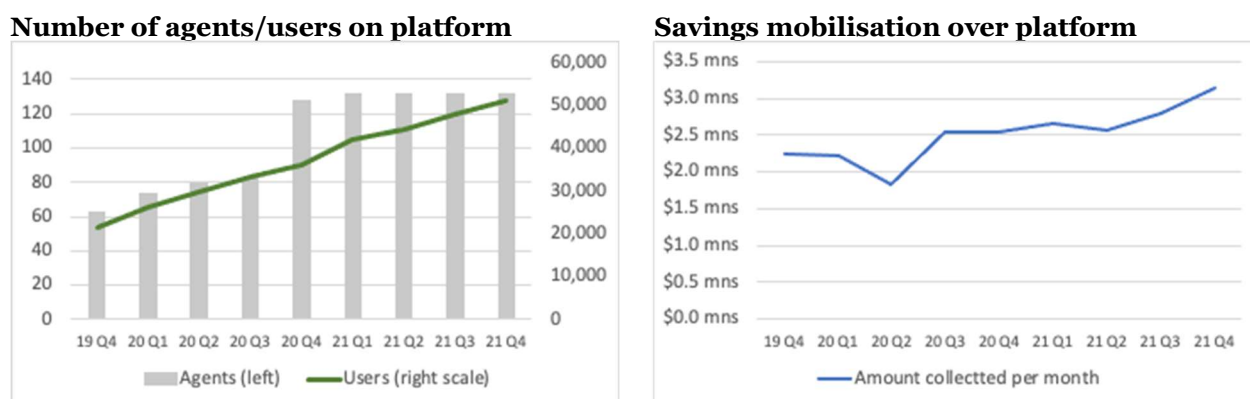
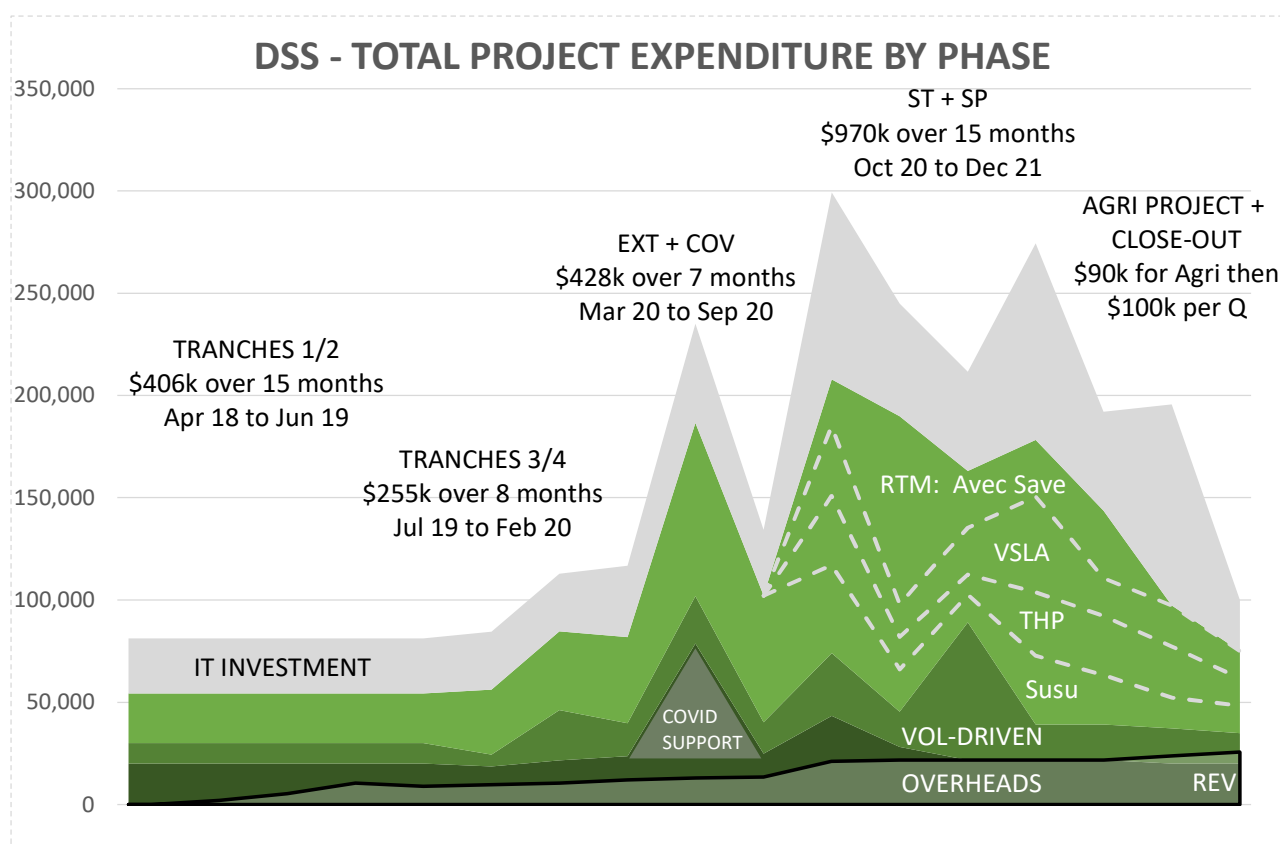
**Figure 9: Project performance to end of Q4 2021**


Figure 9 offers a snapshot of the performance of the DSS Platform’s linkage efforts between the end of 2019 and the end of 2021, while Figure 10 superimposes their project costs and emerging revenue streams. By the end of 2019, the DSS Platform had delivered a very controlled, steady spend of US\$ 80,000 per quarter and already onboarded 17 enterprises with 33 outlets and over 60 collection agents and 21,481 users. It was building back-end management systems that offered a form of basic enterprise resource management support. Collected deposits were all going into bank accounts; withdrawals from those accounts were beginning to be tracked by purpose; and expense management plans were being put in place. Separately, illiquid assets were being taken off-balance to be funded by more appropriately structured private investment funding, and the DSS Platform piloted the delivery of lending to business users of susu collection, which they showed could work at 3%–4% monthly (lower than typical semi-formal Tier 3 microfinance lending rates) and deliver net profits after both bad debts (very limited) and costs of distribution/collection had been accounted for.

By the end of 2019, the SatF team had already decided that the DSS Platform could handle a faster flow of funding and that the focus should move to extending the reach of the platform to other parts of Greater Accra and beyond. Unfortunately, COVID-19 hit in early 2020. The focus turned to protecting the robustness of the enterprises on the platform; with enhanced SatF support, several new enterprises were onboarded and saved from insolvency, with all savers being able to access funds at a day’s notice (follow this [link](#) to read how the DSS Platform managed through the crisis).

**Figure 10: Emerging revenues versus project costs**


The DSS Platform learned a lot from the crisis and knew it had a workable business case for digitising susu enterprises. Within a couple of months of the peak of the crisis, enterprises on the platform were having their best ever collection months and all of them were beginning to make good on their payments for being on the platform. By the end of 2020, revenue was getting very close to covering the core operating costs of the platform.

The DSS Platform team had, however, come to realise that the traditional pricing model was holding back susu collection—the typical fee on withdrawal is 3.33%, whereas for holding savings in a mobile money wallet it can be as low as a single percentage point. The DSS Platform started working on income diversification for the enterprises on its platform. It also worked on Customer Business Clubs, which work to improve the incomes of informal business users of susu collection so they can save more and also start making payments at no charge to other businesses in business clubs linked to the platform. A number of the recruited susu enterprises now operate through a single shared account to consolidate their balances as a precursor to negotiating a positive rate of interest on accumulating float money placed with a selected partner bank.

At the same time, the DSS Platform started to experiment with extending to encompass the digitisation of VSLA groups. SatF wanted to see if the same bottom-up approach to building an understanding of informal saver needs could be extended from low-income peri-urban susu saving to rural group-based saving. The DSS Platform partnered with Avec-Save, a Swiss-based fintech start-up, which had models of how VSLA float management might work better. This brought with it an opportunity to digitise an NGO-linked network (THP Epiclis) of 45 rural financial cooperatives with nearly 20,000 users, 5,000 of whom had already been onboarded by the end of 2021. Separately, the DSS Platform had been rapid-prototyping a working model of VSLA linkage in Volta Region, where the platform already has a rural susu collection footprint. The THP Epiclis connection also opened up access to a network of over 2,000 unlinked VSLAs; the DSS Platform and Avec-Save worked together on profiling 300 of these with a view to them being the first wave of linkage candidates once a working model was agreed between the two partners. Finally, the DSS Platform integrated a proximity tool developed by NIRAS International which allowed them to geo-locate transactions, thus

improving Susu agent allocation and opening up enhanced possibilities to link up customers interested in conducting business operations. On this basis, they teamed up with another SatF agri-fintech partner from Tanzania (DMA) to enhance the functionality of the tool to include farmer profiling and geo-location, and benefit from cross-programme learning around last-mile delivery to rural farmer groups.

All this was funded out of the Super Tranche and special side-project funding, which has left the platform with three new capacities: the ability to support lending operations as well as savings mobilisation, a digital-VSLA offer with the scope to link to external sources of finance (both savings and loans), and a farmer profiling capacity similar to the models developed by SatF's two agri-fintech partners in Tanzania (capturing plot location, cropping, input needs, etc.). All of these are funded investments in future business development, but the DSS Platform team remain confident that the core systems are now self-funding and ongoing system development is now being consolidated back into core operating costs that are covered by enterprise subscriptions. In the two years between end 2019 and end 2021, the user base has more than doubled to over 50,000, of whom about 30% are now rural. Over the same period, the number of supported susu collection rounds has also doubled to more than 120, and there are also more than 40 rural cooperative offices on the platform.

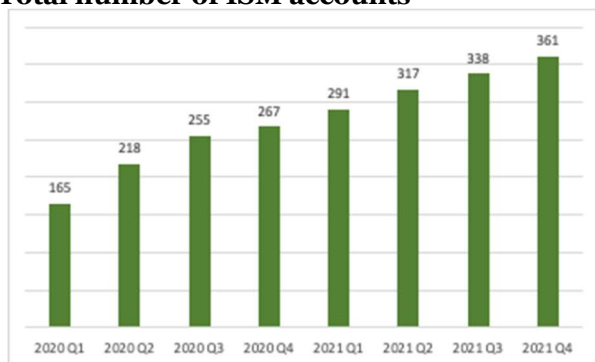
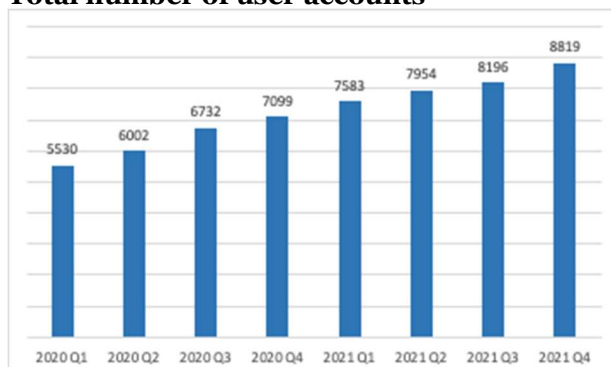
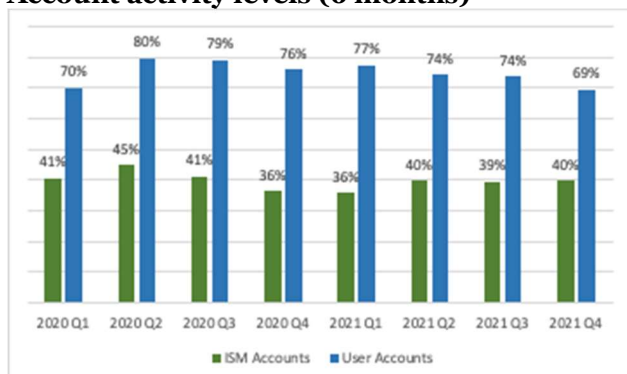
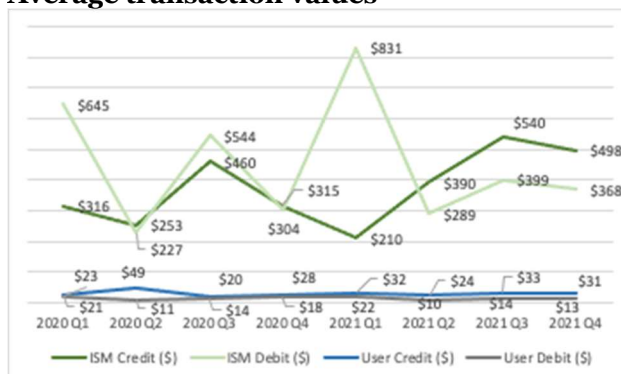
### Case study 3: M-Finance

M-Finance received approval for a US\$ 750,000 project with SatF to scale up their savings model to reach ISMs and individual savers across all regions in Zambia. The project was designed to tailor M-Finance's existing savings offer and mobile platform to cater to the needs of ISMs and their users in rural and peri-urban areas and to bring financial services as close as possible to customers through a combination of branch staff and internal and external agents. The route-to-market was going to be delivered through partnerships with facilitating NGOs and M-Finance staff onboarding and serving ISMs within their operating catchment areas. M-Finance agreed to contribute another US\$ 187,500, representing 25% of the SatF outlay.

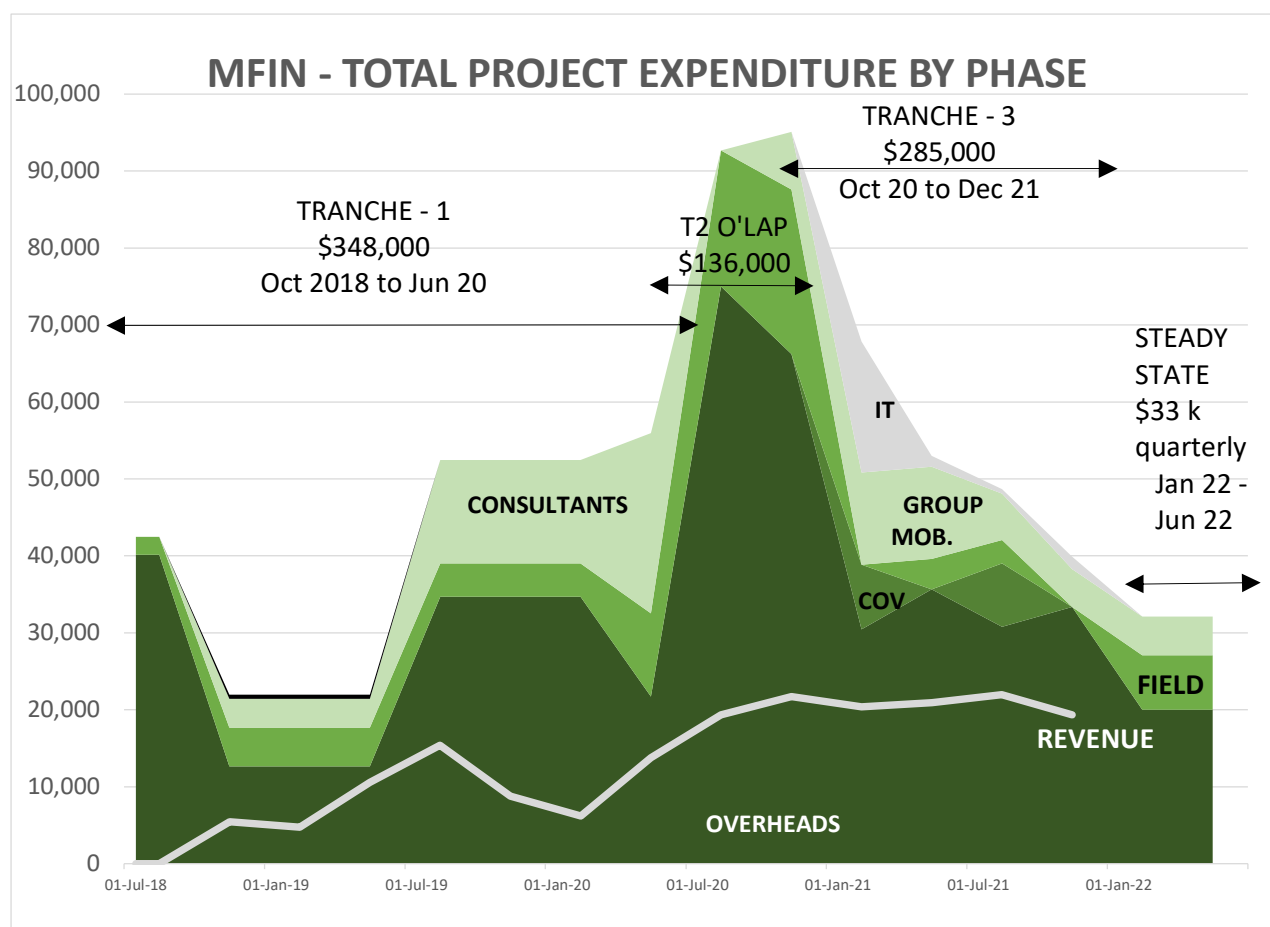
The project got off to a good start, with promising results in terms of onboarding and savings accumulation in the first focus regions, most notably in Mansa in the Luapula Province. However, a combination of setbacks caused by the COVID-19 situation in Zambia and more difficult operating conditions for M-Finance in the scale-up phase to subsequent regions/provinces (in part due to a restructuring process that limited staff presence on the ground) meant that progress slowed down, and the original project target of reaching 35,000 ISM users proved difficult to reach.

All this meant we had to reduce the SatF funding envelope from US\$ 750,000 to US\$ 596,500. However, reassurances from the M-Finance team about the strategic importance to them of the rural and peri-urban ISM market led to negotiations regarding an operating model that could be sustained beyond the end of the SatF programme. We agreed a close-out budget and workplan that facilitated the adjustment of their operations to a new model. This model maintains their centralised efforts to source NGO partnerships for expanding the customer base and includes some field work by branch staff to onboard ISMs and individual users, but shifts customer service to almost exclusively being carried out by external agents.

Figure 11 offers a snapshot of the performance of M-Finance's linkage efforts as at the end of Q4 2021, while Figure 12 superimposes their project costs and emerging revenue streams.

**Figure 11: Project performance as at the end of Q4 2021**
**Total number of ISM accounts**

**Total number of user accounts**

**Account activity levels (6 months)**

**Average transaction values**


Our support to M-Finance throughout was dedicated to finding an adequate operating model that would bring the institution as close to as possible to the ISMs and facilitate a seamless interaction between the MFI and their rural and peri-urban customer base. A considerable allocation was made to establishing a cadre of branch champions that would lead the efforts to onboard ISMs and oversee their interaction with internal and external agents. Additional expense lines were dedicated to consultancy to help M-Finance configure the product specifications; IT work required to adapt their mobile platform to fit with the needs of ISMs; and engagement with NGOs to source route-to-market options.

**Figure 12: Emerging revenues versus project costs**


The relatively slow build-up in ISM and user accounts meant that the branch champion model ultimately proved too expensive to sustain, especially as operations on the ground were impacted by COVID-19 disruptions and an internal restructuring process that limited available staff in certain regions. Nevertheless, M-Finance has seen a relatively steady build-up in balances over the course of the project and the value of float is very high in Zambia compared to other countries. Taken together, there are now signs that, if continued, most of the core operating costs of serving rural and peri-urban ISMs could now be covered by the imputed value of the float. This is especially valuable given the high costs of market financing for an MFI in Zambia.

Of particular interest is the evidence coming out of the regions that have seen the best early engagement with ISMs. For example, in Mansa, the balances accumulating from ISMs and their members even in the early stages of the project meant that M-Finance no longer had to drive a secure cash-in-transit van with cash on a regular basis to meet customer cash needs; rather, those needs could be fulfilled with the cash coming in from informal savers. This suggests that business case was achieved at the Mansa branch level, even if it has not been replicated for M-Finance nationally.

Overall, however, the Zambian market remains difficult in terms of linkage solutions that can be scaled up sustainably. Once the COVID-19 pandemic subsides, some of the lessons from SatF will be of use for future linkage efforts, but it is clear that more changes are needed in terms of products, mobile/agent network coverage, and costs for a clear sustainable savings solution to emerge.

## Case Study 4: BizyTech

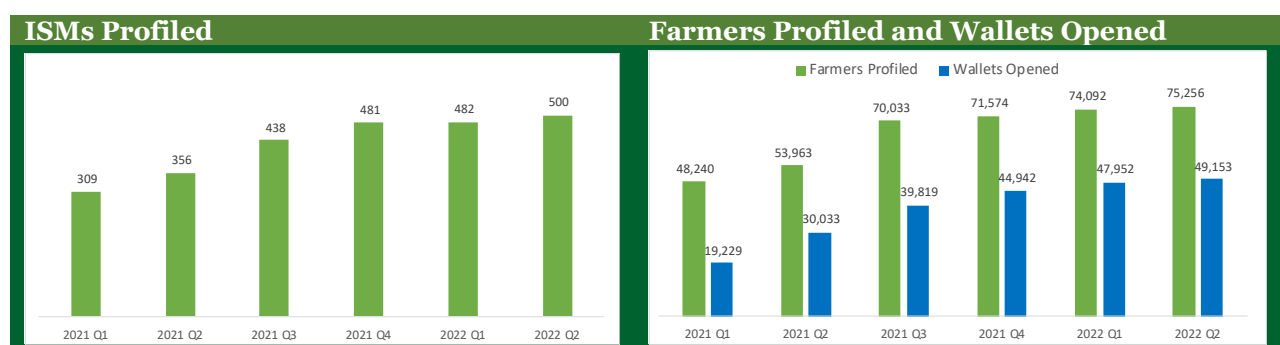
Bizytech's collaboration with SatF started as part of a consortium also involving Maxcom and DMA, which received approval for up to \$800k of funding to create a digital platform that would add a savings element for farm inputs into already existing farmer groups clustered around publicly sponsored irrigation schemes. Group and individual member onboarding would be based on extensive farmer profiling and the platform would connect farmers with pre-qualified agro-input providers before adding in other goal-based saving. Customers were to be served through Maxcom's agent network and the data accumulating on the platform would be used to improve the delivery of inputs, ensure that farmers have adequate pricing options and access to a range of linked services such as crop off-take, individual bank accounts, micro-insurance, push SMS, etc.

The project underwent a series of adaptations. First, as Maxcom could no longer effectively support the project due to internal financial and operational difficulties, Bizytech and DMA took delivery upon themselves and rebranded the offer as Kilimo Akiba (KA). Then, as the two institutions developed independent visions of what the platform should offer and how farmer groups can be served, SatF facilitated splitting the project into two separate components (one for Bizytech and one for DMA) so both visions could be pursued. The KA branding remained with Bizytech.

Bizytech's approach is premised on two key components: (i) the development and maintenance of Kilimo Data Hub (KDH) – a data repository for all the information gathered at all stages of engagement with farmers and their groups, and (ii) the direct integration of KDH with FSPs holding farmer savings. The KDH data repository allowed data from the farmer profiling (who/where they were, what they grew, etc.) to be merged with data on what they wanted by way of inputs and what they were producing and link this to data on input providers and off-takers, which would eventually allow the creation of an ecosystem to connect all relevant parties in the value chain and offer the kind of services that the original project had envisaged. The link through to FSP accounts would become an important signalling mechanism that funds were in place or accumulating to cover necessary payments, ensuring transparency, and building trust among the various parties. To date, integrations have been successfully completed with Tanzania Commercial Bank (TCB), CRDB Bank, Tigo and FINCA. Bizytech have also signed super agency agreements with the three banks they have integrated with (TCB, CRDB and FINCA).

Figure 13 presents the collection of data on KDH over time. The two charts show: (i) the number of profiled farmer groups (ISMs), and (ii) the number of profiled farmers, and of these, how many have provided sufficient information to have wallets ready to be linked with the deposit holding FSPs.

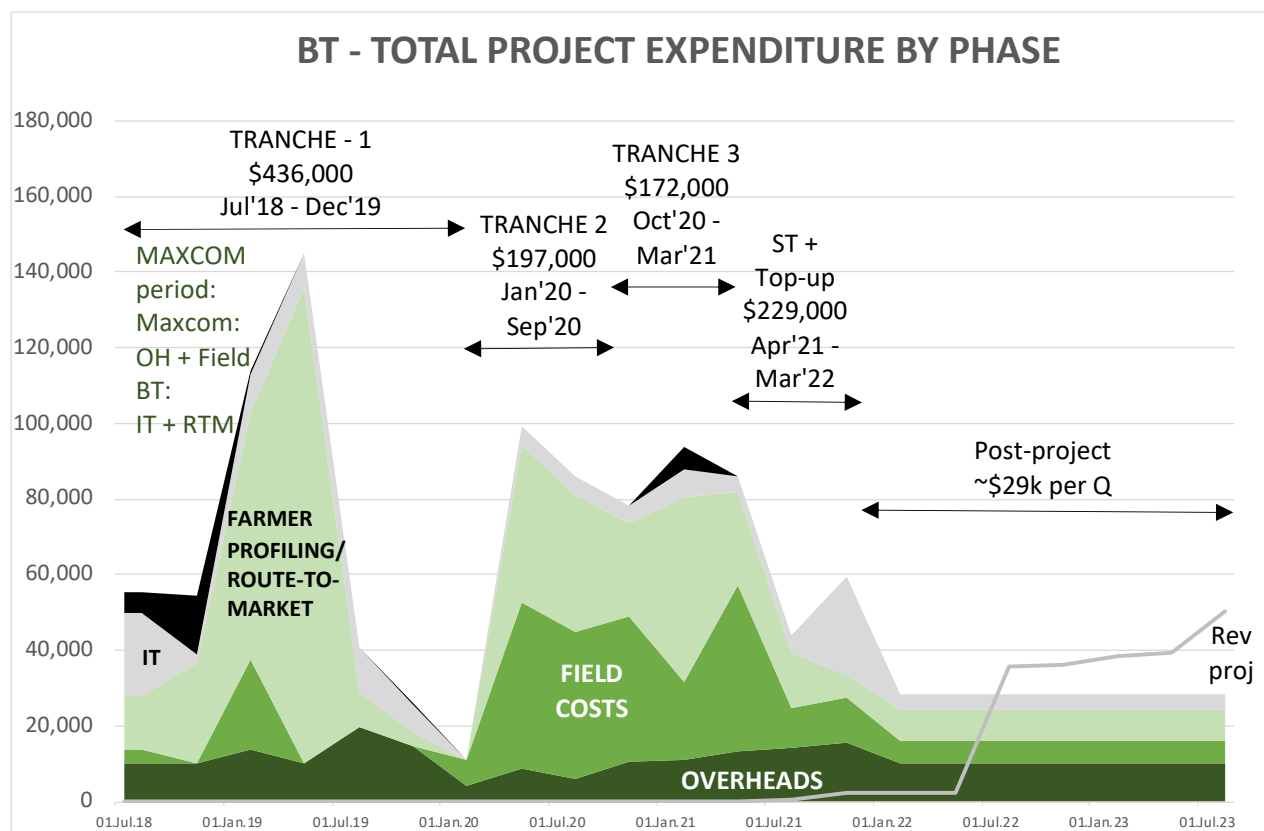
**Figure 13: Data on KDH as at the end of Q2'2022**



The various changes to the configuration of the project, the protracted Government approval process that Bizytech and DMA had to go through to take KA to market, and the time required to complete the necessary integrations, meant that the practical delivery of the digital savings component started later than hoped and by the end of the SatF timeline, only the first few pilot groups were channelling savings through KDH. However, the concept and functionality were sufficiently clear and Bizytech, in partnership with CRDB, became part of the Government's programme to subsidise and distribute fertilisers for 2022-23. At the same

time, a credit facility is to be piloted with FINCA and that, together with the other commercial relationships with partner FSPs, will continue to drive revenues beyond 2023. Figure 14 captures the emerging revenue streams on the back of the accumulated SatF project expenditure and steady-state operating costs going forward.

**Figure 14: Emerging revenues vs. project costs**



As can be seen in Figure 14, a considerable proportion of project expenses was spent on profiling farmers and ISMs. Although funding the profiling process was not strictly under the remit of SatF, we recognised the importance of having adequate information on a sufficiently large customer base to allow Bizytech's ecosystem approach to fulfil its potential. We were also interested to see if a business model could be built that would ultimately cover the upfront profiling costs. Whereas it seems that profiling still needs to be subsidised for this kind of value chain approach to work, Bizytech did manage to decrease unit profiling costs from \$3.5 per farmer in the early phases of the project to ~\$1/farmer towards the end. Other significant cost categories included the IT spend required to develop/ maintain KDH, and the field costs involved in operationalising the KA wallets.

Beyond the role that they're playing in the Government's fertiliser subsidy programme for 2022-23, Bizytech expects to have four major revenue streams leveraging the ecosystem uptake of the digital distribution solution: (i) commissions made on savings mobilisation and payment facilitation under their super agency agreements, (ii) sales commissions from input distribution, (iii) revenue share from loans issued, and (iv) revenue share from output linkage for off-takers. Early signs that these can all work have started to emerge on a subset of the farmers and ISMs profiled with SatF support, and it is expected that through the Government programme, Bizytech will add a significant number of KA wallets to those already opened (Bizytech plans to fully profile a subset of the 3 million farmers targeted by the Government programme).

Overall, it seems that a business case for Bizytech will emerge, even if beyond the end of SatF. Assumptions around revenues still need to be validated but their participation in the Government's fertiliser subsidy programme is a strong sign that the capabilities of the KDH platform are well recognised. The emerging revenue streams are expected to cover operations, platform maintenance, and bursts of fieldwork and/ or

additional profiling. Nevertheless, the business case remains tight and Bizytech's experience shows just how difficult it is to make a promising value proposition for users also work for the platform provider. Furthermore, farmer profiling cannot be fully covered through revenues and still requires subsidy or continuous efforts to cut unit costs even further.

## About SatF

SatF was a six-and-a-half-year programme (2015– June 2022) that sought to bridge the gap between the supply of formal financial services and ISMs in Ghana, Tanzania, and Zambia, so that ISM users in these countries have a greater choice and use of financial services that best meet their needs. SatF was a US\$ 17.6 million partnership between OPM and the Mastercard Foundation. [For more information, and to read the full SatF strategy, visit the OPM website.](#)



### Mastercard Foundation

Mastercard Foundation works with visionary organisations to provide greater access to education, skills training and financial services for people living in poverty, primarily in Africa. As one of the largest private foundations its work is guided by its mission to advance learning and promote financial inclusion to create an inclusive and equitable world. Based in Toronto, Canada, its independence was established by Mastercard when the Foundation was created in 2006. For more information and to sign up for the Foundation's newsletter, please visit [www.mastercardfdn.org](http://www.mastercardfdn.org). Follow the Foundation at @MastercardFdn on Twitter.



### Oxford Policy Management

Oxford Policy Management is one of the world's leading international policy development and management consultancies. We enable strategic decision-makers in the public and private sectors to identify and implement sustainable solutions for reducing economic and social disadvantage in low- and middle-income countries supported by offices in the UK, Bangladesh, India, Indonesia, Nepal, Pakistan, Nigeria, Tanzania and South Africa. For further information, visit [www.opml.co.uk](http://www.opml.co.uk) or follow us on Twitter @OPMglobal.

**Front cover image:** Sam Vox/SatF/OPM