Bath Social & Development Research Ltd

QuIP Qualitative Impact Assessment Protocol

Linking formal financial services with informal savings:

Reflections from QuIP studies of the Savings at the Frontier programme, 2019-2022

September 2022

Thibault Uytterhaegen, Fiona Remnant, James Copestake

This is an overview report based on reports from QuIP studies written up between 2019-2022 by Silvia Storchi, Joana Afonso, Aurelie Larquemin, Rebecca Huovinen and Thibault Uytterhaegen**.** The studies were overseen by Fiona Remnant and James Copestake of Bath Social & Development Research.

The studies were conducted in collaboration with our in-country research partners; **PDA Consulting** led by Clement Sefa Nyarko in Ghana, **Ascent Consulting** in Tanzania led by Bob Mboris and **Joseph Zulu** in Zambia.

Savings at the Frontier is a partnership between Mastercard Foundation and OPM that aims to improve the financial inclusion of low-income individuals and communities in sub-Saharan Africa. For more on the Savings at the Frontier programme see https://www.opml.co.uk/projects/savings-frontier

Bath Social & Development Research is a non-profit consultancy which carries out independent evaluations using the Qualitative Impact Protocol, QuIP. For more see www.bathsdr.org

Contents

List of figures

1. Introduction and overview

This report presents the findings from a series of qualitative impact evaluation studies into the effects of series of financial innovations designed to link informal savings mechanisms (ISMs) with formal financial services (FFS) under the Savings at the Frontier (SatF) programme. The evaluation studies were based on use of the Qualitative Impact Protocol (QuIP), a research method designed specifically to elicit evidence of the impact of an intervention as perceived by its intended beneficiaries in a way that reduces the risk of confirmation bias. The subject of the research was a set of innovative informal savings linkage products introduced in Tanzania, Zambia and Ghana over a six-year partnership between Mastercard Foundation and ten different financial services providers.

Savings at the Frontier (SatF) was set up as an experimental programme with the objective of finding sustainable business models for partnered financial services providers (FSPs) to provide innovative financial services through links with informal savings mechanisms (ISMs). The users of ISMs, such as members of savings groups or customers of susu enterprises, form a diverse group of people across the socio-economic spectrum with diverse livelihoods. Initial research across the three countries demonstrated that many already employed a mix of informal and formal (including digital or mobile) financial services. This meant that FSPs partnering with the programme faced the challenge of doing something more than expanding established services.

The SatF programme commissioned qualitative impact evaluation alongside other research approaches specifically to explore the causal pathways linking financial innovation to user level outcomes. The QuIP methodology was based on semi-structured interviews with relatively small samples of customers. Their purpose was not to establish statistically representative or quantitative estimates of outcomes but a set of detailed empirical case studies and vignettes that would enhance and possibly challenge prior understanding of the main drivers and barriers to adoption and effective use of financial services.

In the first part of the report, findings on customers' response to the financial innovations are presented. Two distinct issues emerged from the data: first, the role of bank agents in facilitating adoption and use of FFS, and second, specific features of the 'linkage products' themselves that affected their uptake. We find that the relationship with bank agents – rather than specific technical characteristics of financial products - is critical to encouraging linkages between FFS providers and savings groups. Product design does also influence take-up of FFS by individuals, but not particularly via linkage with informal savings mechanisms.

The second half of the report illuminates these results by presenting findings on both product-side barriers to accessing financial services, the external (including social) factors that influence their adoption and use, and how financial services impact on the lives of ISM users. A recurring theme is variability in use of the financial linkage innovations and their impact, including preference for cash within savings groups, and preferences between personal and group accounts. We find that these preferences are influenced less by product innovations and more by social relations and social norms, with respect to use of cash, for example. In addition to highlighting variability in impact pathways, the QuIP studies also revealed the many contextual factors - economic, cultural and social – that influence ISM users' take-up and use of financial services.

The QuIP studies corroborated evidence from other sources in revealing the existence of a wide range of informal savings mechanisms in use. In all three countries, the SatF programme found that membership of ISMs extended across income groups and the rural-urban divide. The larger commercial banks were responding with a wide range of approaches, including fully digital services inter-operable with bank accounts and mobile wallets. Fintech partners, in contrast, tended to focus on more specific mechanisms, including susu collection and smallholder producer organisations.

1.1 Overview of studies and main findings

This section provides some summary tables containing information on the studies, the SatF innovations they assessed, and the main findings. The first table provides the reference codes used throughout the report.

Code = first letter of country, first letter of FSP, first letter of the linkage product, year of the study.

Table 1: Summary of QuIP study codes

Financial service provider (FSP)	Linkage product	Date of roll-out	Country	Date of QuIP study or studies	Study code
DSS App	DSS App	2020	Ghana	2019* 2020 (KIIs) 2022	GDD19 GDD20 GDD22
Madison Finance	Mobile platform	2019	Zambia	2020	ZMM20
TPB	M-Koba	Feb 2019	Tanzania	2020 and Late 2021	TTM20 TTM21
EBTL	EazzyKikundi & Inua	2022	Tanzania	2020 and 2022	TEE20 TEE22
NMB	Pamoja	May 2020	Tanzania	Late 2021	TNP21
Bizy Tech	Kilimo Akiba	June 2021	Tanzania	2022	TBK22

* In Ghana, the first study (GDD19) was not able to isolate respondents who had experience of the DSS App so that study is not referenced in the review of findings.

Table 2 provides more detail about the different interventions assessed and QuIP studies referenced in this report. While the interventions share the goal of bringing more informal users into the formal financial services sector, there was wide variability between target users and the way that FSPs engaged with them. Most innovations targeted existing savings groups, encouraging them to use mobile platforms to manage group accounts and in some cases leveraging this connection to encourage individuals to open their own accounts. Most but not all provided some form of financial training via agents, staff or (in Zambia) via a contracted NGO. The Kilimo Akiba product in Tanzania was different in its focus on farmer savings groups specifically, with agricultural training and access to inputs and market information being part of a wider offering. The DSS App in Ghana was more focused on improving the functionality and transparency of susu collectors working with individual and group savers – its continued evolution also explains why it was subjected to three separate rounds of research. In contrast, delays in roll out of the Madison Finance innovation in Zambia resulted in only one study being conducted, and the decision to study four projects in Tanzania during the final year of research instead – revisiting TPB and EBTL customers and assessing newer products from NMB and Bizy Tech.

Table 2: Summary of SatF product offers and associated QuIP study case selection

Main QuIP study references	Target users	Main offer	Structure of agent support/ interface with customers	Individual interviews	FGDs	KIIs
TTM20 / TEE20 Tanzania 2020	Group & individual accounts	**M-Koba:** Mobile contributions and loans platform for savings groups. **EazzyKikundi:** Mobile platform for individual and group savers.	EBTL: Access accounts through agents and mobile phones. Providing training to the savings groups. TPB: Access accounts through mobile phones. Trainers sign them up to group savings accounts.	**24** 12 x M-Koba VSLAs (6 rural & 6 urban) 12 x EBTL VSLAs (6 rural & 6 urban)	**4** 2 x M-Koba VSLAs: 1 rural & 1 urban 2 x EBTL VSLAs: 1 rural & 1 urban	**3** 2 x TPB trainers in Songea 1 x EBTL agent in Morogoro
ZMM20 Zambia 2020	Group & individual accounts	**Madison Finance:** Platform to connect savings group accounts to formal individual accounts for payouts.	- Providing training to customers via an NGO. - Customers will be able to make payments through mobile banking platform and deposit and access cash through agents and partnered agencies. - Customers will be able to access accounts using fingerprint recognition at biometric POS machines	**24** 12 x high activity VSLA 12 x low activity VSLA	**4** 2 x high activity level VSLA 2 x lower activity level VSLA	
TTM21 Tanzania 2021	Group accounts	**M-Koba:** Mobile contributions and loans platform for savings groups.	- Access accounts through agents and mobile phones - Trainers visit and train groups - they receive commission	**24** 8 x active groups (peri-urban) 8 x inactive groups (peri-urban) 8 x active after period of inactivity (rural)	**2** 1 x active group (peri-urban) 1 x inactive group (peri-urban)	**3** 2 x M-Koba trainers 1 x M-Koba agent

Main QuIP study references	Target users	Main offer	Structure of agent support/ interface with customers	Individual interviews	FGDs	KIIs
TNP21 Tanzania 2021	Group & individual accounts	Integrating **Pamoja** (mobile platform for group savings account) with **ChapChap** (individual mobile banking platform) linking savings groups to the bank (although this integration only happened after the QuIP study).	- Bank staff are NMB Pamoja group account openers - Free access to mobile platforms, automated notifications and record keeping - Digital transactions can be made on behalf of other savings group members	**24** 6 x Portal users, high transaction level (urban) 6 x USSD code users, high transaction level (rural) 6 x Portal users, low transaction level (urban) 6 x USSD code users, low transaction level (peri-urban)	**4** 1 x Portal users, high transaction level (urban) 1 x USSD code users, high transaction level (urban) 1 x Portal users, low transaction level (rural) 1 x USSD code users, low transaction level (rural)	**2** 2 x NMB bank staff
TBK22 Tanzania 2022	Farmer saving & purchasing groups	**Kilimo Akiba:** Mobile platform for farmer savings groups - Seasonal savings accounts to purchase farming inputs - Financial and agricultural training	- Local Kilimo Akiba field agents engage groups and supervise farmer group activities	**24** 12 x farmer group using bank account 12 x farmer group using lock box	**2** 2 x farmer groups using bank accounts	**2** 2 x village coordinators (Kilimo Akiba agents)
TEE22 Tanzania 2022	Group & individual accounts	**EazzyKikundi:** Mobile platform for individual and group savers.	EBTL agents act as facilitators, overseeing the integration and subsequent supervision of existing savings groups to the Inua and EazzyKikundi products	**24** 6 x 4 groups using EazzyKikundi (rural)		6 4 x leaders of savings groups not using EazzyKikundi 2 x EBTL facilitators
GDD22 Ghana 2022	Bridge between susu collection and financial institutions	**DSS App:** Integrated mobile banking applications to financial institutions and their customers.	Susu agent uses the platform as a digital interface for customer records to improve trust and accuracy - but does not replace f2f still visits them or offers a location for deposits	**24** 12 x high volume transaction users 12 x low volume transaction users		**2** 2 x DSS App agents

Table 3: Summary of findings for each main QuIP study

<table>
<tr><th colspan="2">QuIP Study</th><th>Key findings</th></tr>
<tr><td>TTM20 / TEE20</td><td>Tanzania 2020: M-Koba (TCB) & EazzyKikundi (EBTL)</td><td>- Saving and borrowing levels and awareness of financial products have increased - drivers:
Financial services training provided
Learning by example from others in the group
Increased business activity and income
EazzyKikundi users in established groups used group business activities to improve income
Better regulation of lending amounts which improved repayment rates
- Increased amounts of cash drove some use of online services and individual accounts, but mobile take-up still limited
- Literacy levels and access to technology still a barrier for some to use new products</td></tr>
<tr><td>ZMM20</td><td>Zambia 2020: Madison Finance</td><td>- Saving and borrowing levels and awareness of financial products such as mobile banking and Madison individual bank account have increased - drivers:
Easy to access and no charge
Individual account helps to avoid impulse spending
Mobile app has opened up practicalities of mobile banking
Financial services training provided
Learning by example from others in the group
- Not seen as relevant for those with low savings levels
- Most not linking individual accounts with group accounts for transfers as expected</td></tr>
<tr><td>TTM21</td><td>Tanzania 2021: M-Koba (TCB)</td><td>- Benefits of M-Koba platform:
Ease of saving and withdrawal
Free/low costs (initially)
Security and transparency
Notifications of transactions
Ease of borrowing
- Increased mobile money charges reducing use
- Lack of understanding on how to take and use loans
- Need for more training and support for financial management in groups</td></tr>
<tr><td>TNP21</td><td>Tanzania 2021: Pamoja (NMB)</td><td>- Savings level increased
- Benefits of Pamoja:
Ease of saving and withdrawal
Affordable
Security and transparency for the group
- No change in borrowing habits</td></tr>
</table>

TBK22	**Tanzania 2022: Kilimo Akiba (Bizy Tech)**	- Agricultural training a big driver, but not only from Kilimo Akiba - Some reference to Kilimo Akiba training in financial management leading to better money & business management - Increased income from yields led to less borrowing and more investment in livestock - Access to market and better input prices not yet improved - Level of savings driven more by personal circumstances, farmers in unbanked groups still not keen to access FFS
TEE22	**Tanzania 2022: EazzyKikundi (EBTL)**	- High level of competition among individual and savings group financial services available to customers - Some evidence of improved personal budgeting from using financial services - Low customer awareness of specific Inua and EazzyKikundi products, lack of information on the product and lack of interaction with EBTL facilitators - Take up of FFS still mainly driven by social and family networks - Economic downturn has decreased motivation to access loans from formal financial services, reverting to personal ties - Rise in cost of mobile money transaction fees a barrier to use - customers reverting to cash and bank transfers and deposits
GDD22	**Ghana 2022: DSS App**	- Access to FFS has increased, but levels of savings and borrowing have not - Economic downturn and lack of money a key driver of use of FFS - Little reference to use of apps or mobiles in relation to personal financial services, although use of mobile money in business transactions common - Residual distrust in and confusion around FFS, particularly mobile platforms

Please see Appendix 1 for a more detailed breakdown of findings across all the studies.

1.1 The Savings at the Frontier programme and the QuIP methodology

In 2018, Bath Social and Development Research were commissioned to conduct a series of qualitative impact studies over a three-year period to explore initiatives of five financial sector providers (FSPs) to link informal savings mechanisms (ISMs) with their formal financial services (FFS). The research was designed both to understand impact better - whether these efforts to expand the use of formal financial services were having an impact at individual, community and institutional levels - and also to gain more insight into customer preferences, persistent barriers and different use cases emerging from the pilots. Findings have also been fed into the wider evaluation work of the Saving at the Frontier programme (SatF). This programme - a partnership between Oxford Policy Management and MasterCard Foundation - supported a broad range of financial service providers in Ghana, Tanzania and Zambia. Started in 2016, it sought to identify innovative approaches by commercial FSPs to extend financial inclusion, and to provide support for the design and roll out of formal financial products that complemented established informal financial services such as *susu* (deposit taking) enterprises and savings groups. The aim was to drive financial inclusion in positive ways that built on potential clients' existing knowledge and practices by tailoring products to complement and connect with the informal services they were already using.

The QuIP is an impact assessment method originally devised by the Centre for Development Studies at the University of Bath, United Kingdom, further developed and curated by Bath Social & Development Research Ltd – www.bathsdr.org. It is designed to collect credible information direct from intended beneficiaries on significant drivers of change in selected domains of their life (based on the project's theory of change) and what respondents perceive to be the reasons for those changes over a predefined period. The QuIP approach was referenced in CGAP's 2020 publication 'A Research and Learning Agenda for the Impact of Financial Inclusion'[1]:

> "As the name suggests, QuIP relies on clear and transparent qualitative research protocols that use rigorous coding and thematic analysis of causal claims embedded in narrative accounts to evaluate outcomes. It uses client self-reported attribution rather than a comparison group to establish causal mechanisms (Leeuw 2016). At the same time, it gives more voice to the client relative to dominant quantitative experimental methods." (2020: 36)

The method is particularly useful in complex contexts where a variety of factors that are hard to disentangle could influence the outcomes of an intervention. Narrative data collected by 'blindfolded' independent field researchers (that have little or no knowledge of the hypotheses being tested), is cross-analysed against the commissioner's project activities to identify unexpected as well as anticipated drivers of change. Partial or total 'blindfolding', the method by which researchers and respondents are not made aware of the commissioning partners of the specific objective of the study, is an important element in mitigating the problem of pro-project or confirmation bias that is otherwise regarded as a major weakness in qualitative research in financial inclusion.

The causal maps used in this report were taken from the individual studies and show a visualisation of the narrative data collected in interviews, using a form of causal qualitative data analysis. The maps show where respondents have made a causal connection between factors, and how many times that was made by different respondents in the sample.

[1] https://www.cgap.org/sites/default/files/publications/2020_12_Focus_Note_Impact_Research_and_Learning_Agenda.pdf

1.2 Limitations of the research

Since QuIP relies on largely unprompted stories of change, it is important that any intervention or innovation has had long enough to generate some sort of noticeable impact in respondents' lives. The development of innovative products under the SatF programme took longer than anticipated in some places, and some were discontinued early in their lives due to revealed customer preferences. Additionally, the impact of COVID-19 had a disruptive effect as FSPs reconsidered their operations and priorities during lockdowns across the different countries. The timing and distribution of QuIP studies was adapted to try to take account of this, but overall this reduced the time available for product take-up and use during the project window, and thereby limited the range of possible impacts that the QuIP studies could potentially reveal.

While the open-ended interviewing approach used in the QuIP studies was intended to facilitate understanding of unexpected causal drivers and outcomes it is not tailored to quantifying smaller if cumulatively important incremental changes such as small changes in transactions costs or familiarity with financial concepts. For this reason, evidence generated was intended to feed into a multi-method approach to generating evidence of the effect of the programme.

2. Customers' responses to the financial innovations

SatF sought to explore the motives and decision-making processes of users of savings groups who had the opportunity to link with the five FSPs. QuIP studies were therefore designed to target selected user groups who we knew had had this opportunity, and preferably who had used or at least been exposed to the products for a minimum of six months. These customers were then asked to share what had changed in their financial practices over a set time period (typically a year), with detailed questions about how they saved, spent and moved money around. Interviewers collecting these stories of change were trained to probe for details about what had prompted any changes, and what impact this had had on other aspects of their live and livelihoods. These questions were designed to create an opportunity for respondents to talk about any financial products in the wider context of their lives and livelihoods, rather than in isolation or in response to narrow 'prompting' questions. Inevitably, many of the findings are specific to the context of customers in the countries and product groups they were interviewed in, but some findings are generalisable across the dataset. This section presents some of the main findings from these studies which are of relevance to the sector as a whole.

2.1 Role of financial agents as brokers with ISM users

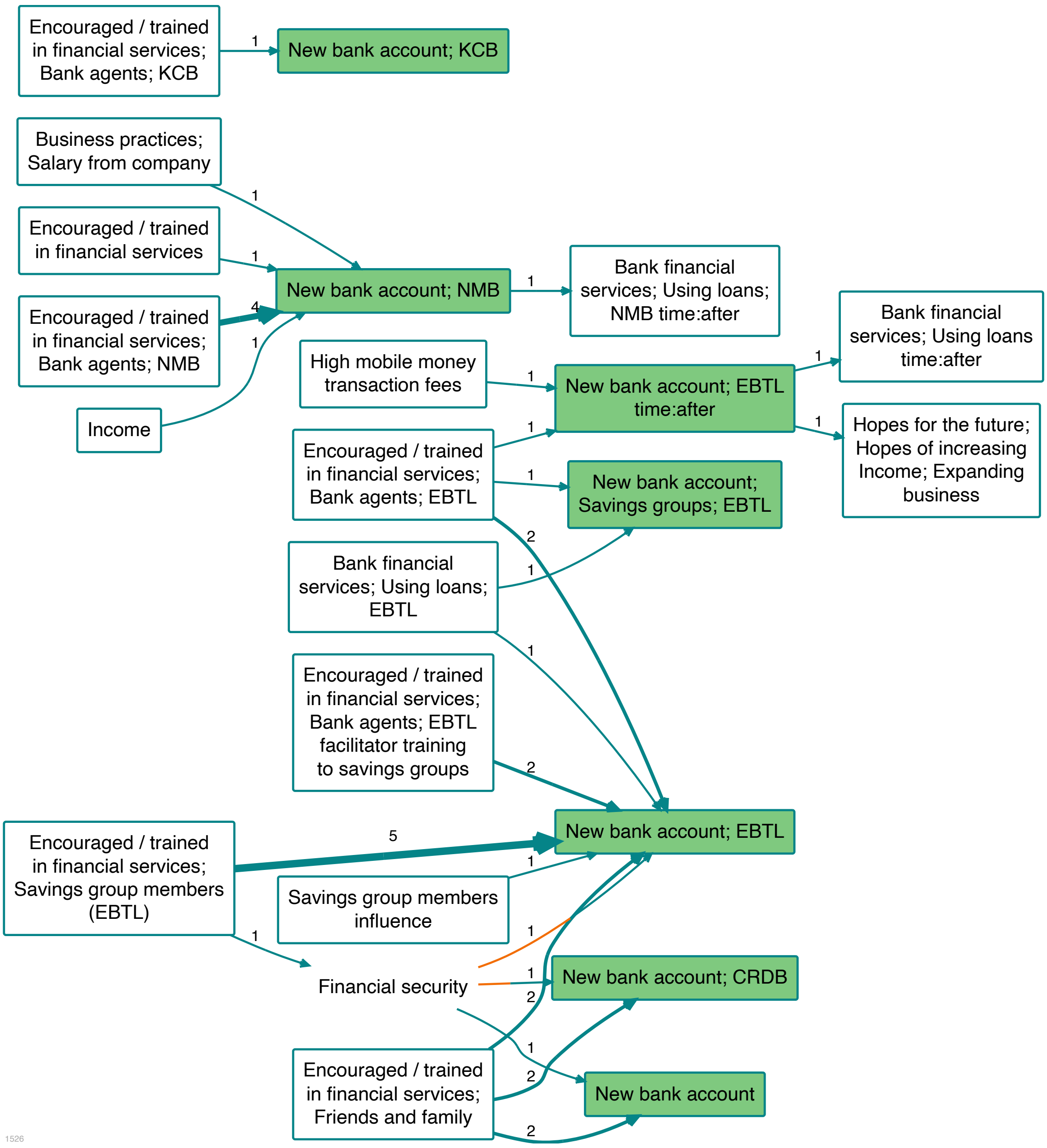
From the outset, QuIP studies identified contact with FSP agents, more than specific product characteristics as having the main influence on ISM users. Most respondents were at some point trained or sensitised into using ISM linkage products, while others received continuous encouragement from a third-party agent or from bank staff to adopt the service. While the finding that FSP agents were influential is therefore not unexpected, the emphasis on 'the person' rather than 'the product' is nevertheless important.

The research found that some form of financial training from agents or facilitators was a key driver of increased/improved use of FFS across all the interventions, regardless of the whether this was provided directly or via a third party. Reference to the specific products and confidence in adopting new services was strongest in the Zambia Madison Finance and Tanzania Pamoja studies, and strong in the Tanzania M-Koba and EazzyKikundi studies. These two Tanzania studies also demonstrated the strongest evidence of the role of savings group facilitators in encouraging groups as safe learning spaces for new practices, such as accessing loans. The weakest references to increasing uptake of use of the specific products were in the 2022 Tanzania Kilimo Akiba and the Ghana DSS studies, but the external context of an economic downturn and pressures on input and sales prices were strong negative drivers in these cases. However, all forms of agent input in introducing ISM linkage products to ISM users played an important role in increasing engagement with the services on offer. In Figure 1 taken from the EBTL EazzyKikundi study in Tanzania, 2022, the importance of bank agents in opening FFS accounts is clearly indicated by the causal pathways from training to opening accounts - with a range of banks since there was a high level of supply side competition evident in this study. This reflects the value attached to bank agents making the effort to visit isolated communities to provide facilitation.

Note for this and future causal maps:

Blue lines indicate a positive causal connection made by respondents between the events or changes shown in the boxes. Orange lines indicate less of the factor they are coming out of or going into, e.g., a feeling of less financial security has led to people opening bank accounts in this map. Numbers indicate the number of respondents who reported each connection.

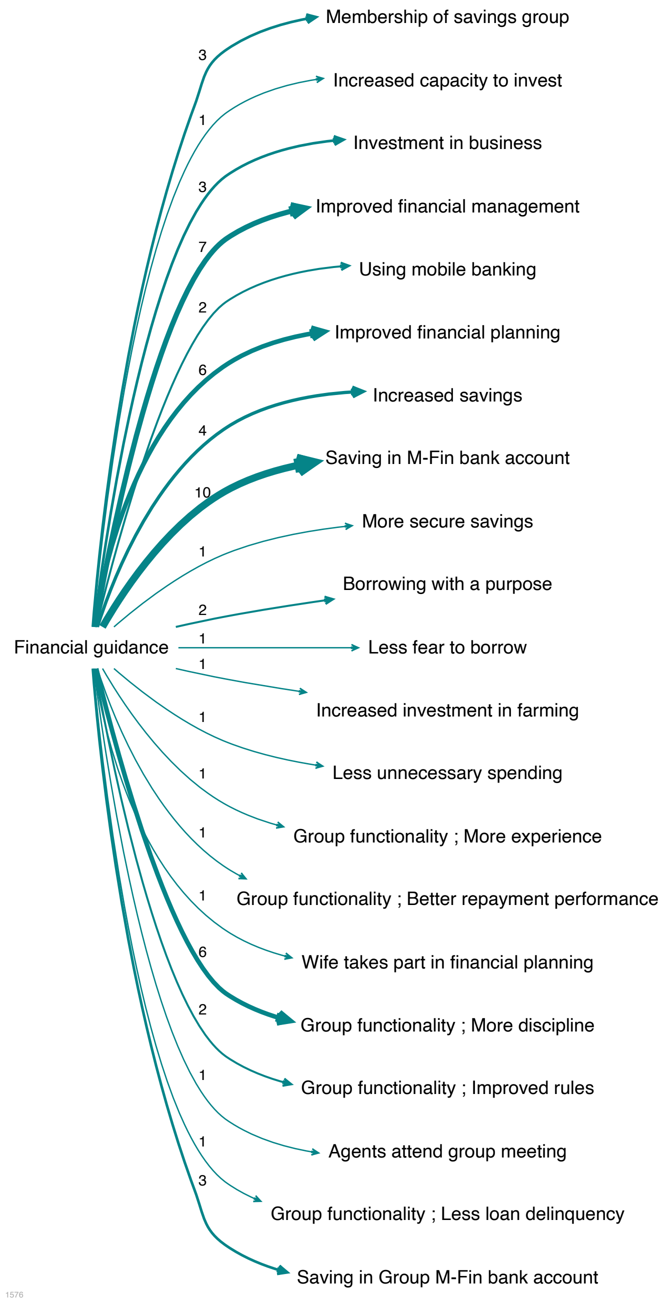
Figure 1: TEE22/ Influence of bank agents on opening a new account



Causal Map ref no. 1527

The causal map in Figure 2 taken from the 2020 study in Zambia further illustrates the impact of investing in personalised training and guidance. Madison Finance (M-Finance) used an NGO called Africare to deliver training and guidance in rural areas on an upgraded agency and mobile banking linkage system that allows individual savers to deposit and withdraw through a variety of agents, including M-Finance agents, mobile network agents and other partnered agencies. The causal pathways revealed in the interviews indicated the influence this guidance had on a range of financial behaviours. Greater discipline among informal group savings members, improved financial planning, and improved financial management were driven by the recurring support and involvement of Africare agents.

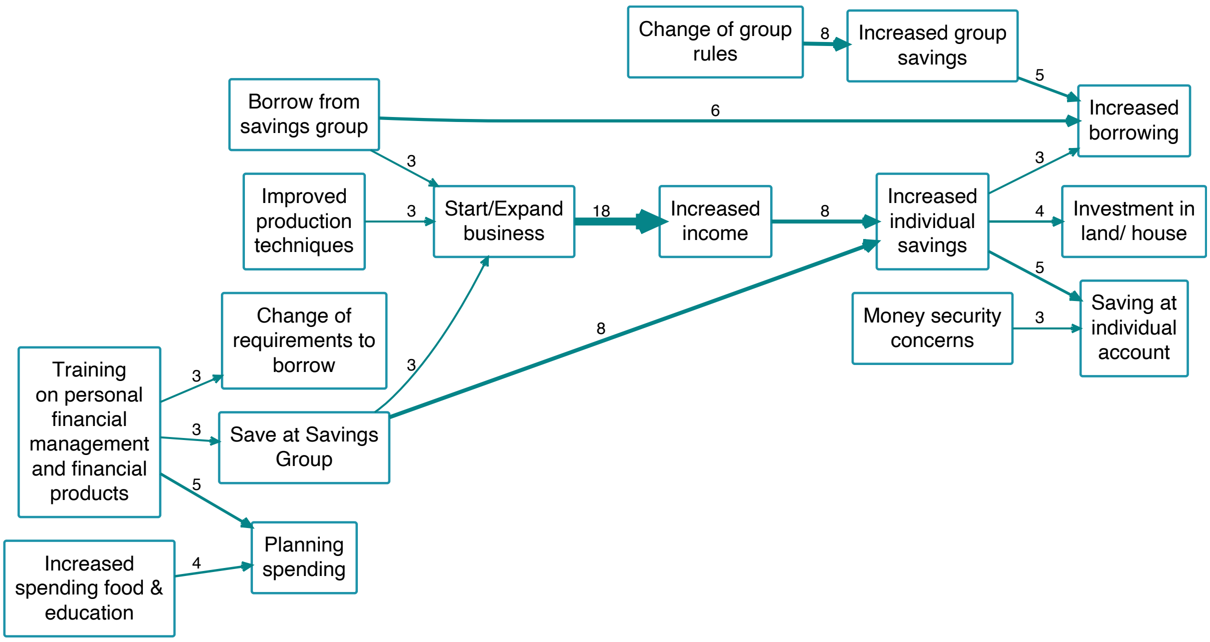
Figure 2: ZMM20 / Impact of financial guidance on financial behaviours



Causal Map ref no. 1576

There was also some evidence that financial training had an impact on the frequency and amounts that individuals were saving through savings groups. Figure 2 from the Zambia M-Fin study shows references to increased use of savings groups and increased savings. In the 2020 Tanzania study (figure 3) increased savings was one of the two most 'central' factors in the study (meaning a factor with many drivers leading into it and consequences coming out of it), with use of the savings group and increased income drivers of equal strength. This reflects the dual importance of external context and structured FFS support which resonates throughout these studies, with the 2022 studies demonstrating a weakening of these trends with reduced income following the economic downturn.

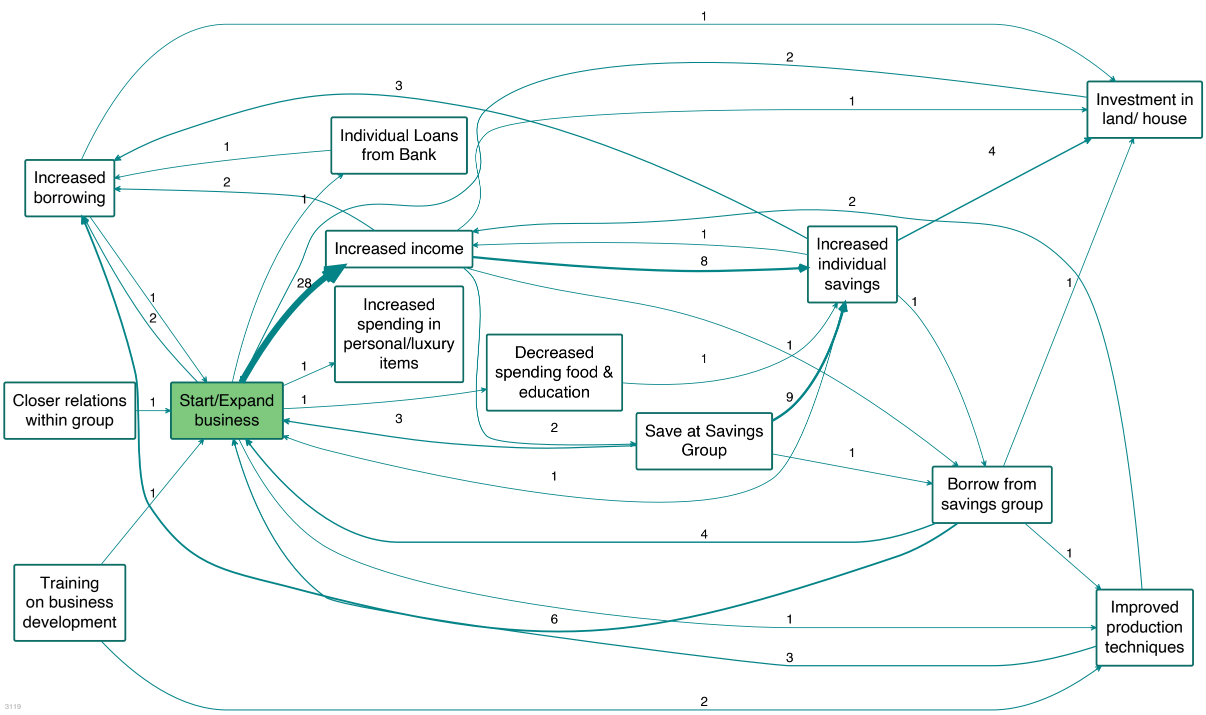
Figure 3: TTM20 / TEE20 Drivers of increased savings



Causal Map ref no. 5788

In some studies, where groups and products facilitated this, respondents reported that increased savings led to increased borrowing; confidence and access to borrowing came from regular saving with an agent or within a group. Although a small number of connections, the same Tanzania 2020 study demonstrated the causal pathways creating a circular relationship between increased saving, borrowing to invest in business and then saving from increased income.

Figure 4: TTM20 /TEE20 Impact of borrowing and savings on income, saving and borrowing



Causal Map ref no. 2427

This was also evident in the more recent 2022 Ghana DSS study where a successful experience for some ISM users led them to feel more confident in taking further loans as needed.

> *"Last year, I borrowed money (3,000) Ghana cedis from Faustey susu. I used the money to buy a Poly tank to enable my wife to start her water business since water is very scarce in this community. This has really helped my family because we generated lot of money from that business. Last year was my first time borrowing but if I finish paying the loan, I will go in for another loan so that I can expand my businesses." GDD22, NL24*

However, increased savings was not always linked to loans for business, also for setting money aside to deal with emergencies and other family needs remains an important function for savings groups - and the agents' role is still crucial in this.

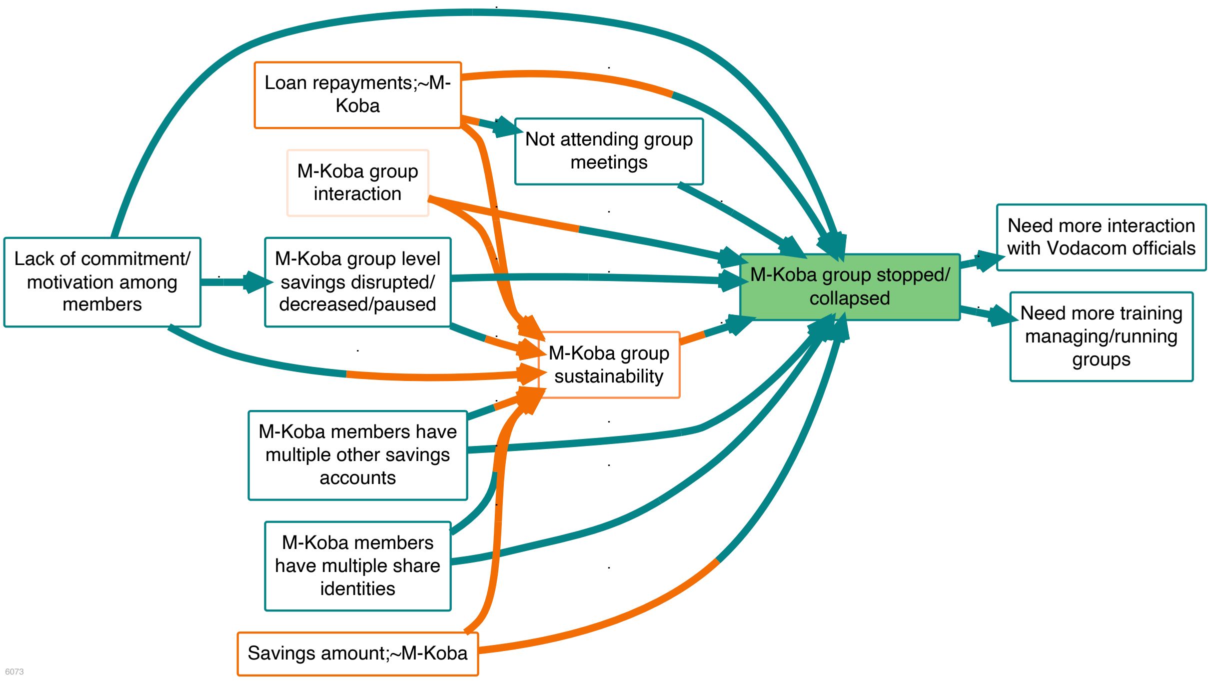
> *"Before September 2020 I never did savings but in 2020 I started our family group which has more than 30 members of 6 families [...] I put my savings in the NMB Pamoja account of the family group. As a group we chose this way because it is easy as bank agents are everywhere and to avoid system failure challenges and loss of deposit confirmation messages when using sim banking or mobile money"* TNP21, UL2

The facilitators and agents who have a direct relationship with savings groups and with individual savers have been shown to encourage healthy saving and borrowing behaviours, thereby reinforcing engagement with formal financial services by creating safe spaces in which learning and confidence in products are promoted. Many of these banks are not relying on bank staff to play this role directly, but relying on third party agents who invest time in personal relationships which are key to building confidence and trust between ISM users and linkage products

> *"We facilitators are the key drivers towards adoption of any banking services within groups. EBTL tried reaching out to the groups to sell the various products, but they were unsuccessful. The groups trust the facilitators as we have been with them for long and they are familiar with us." TEE22, KII 3*

A focus group discussion for one study, Tanzania M-Koba 2021, documented issues with a savings group which had collapsed due to conflict. The issues in figure 5 point towards the important role some sort of external facilitator plays, particularly when dealing with newer, more complex financial products.

Figure 5: TTM21 Peri-urban inactive focus group - collapse of M-Koba group



Causal Map ref no. 6073

This points towards the wider findings in the literature that agents themselves act as symbolic representatives for linkages between ISM users and FSPs, and so provide a crucial role in mediating ISM users' perceptions of FSPs. The role of agents has elsewhere been analysed as 'bridges-to-cash'[2] - while others have noted the powerful 'social knowledge' that provides mediation between financial institutions and service users[3]. Much of this literature focuses on how agents can attract new clients and build relationships in a way that advertisement and the media cannot. As Maurer (2013) suggests, *'agents, who [are] embedded in myriad social relationships, [are] more deserving of trust than a faceless, monolithic bank or MNO that may also be associated with corruption, exploitation, discrimination, and even violence in a given locale.'*

The impact of agents on the decision of ISM users to open new accounts and their ability to continue using services is a strong finding and supports the idea that bank agents are powerful drivers of financial inclusion. This points to the social nature of these informal groups, and certainly in the early stages questions the extent to which linkages will persist without the mediating role of agents. Evidence of continued use later in the lives of these products will show the extent to which confidence persists beyond early take-up and familiarisation with new systems. Agents have played a prominent role in these studies, but there are other SatF interventions which have not relied so heavily on agent intervention and we don't have their perspective as a point of comparison. All the QuIP studies were with groups or individuals who have some engagement with agents, so there is no counterfactual other than their experience prior to having agents involved. It is much harder to identify and contact customers who are not linked to an agent which is why they did not form part of these studies.

---

[2] Eijkman, F., Kendall, J. and Mas, I., 2010. Bridges to cash: The retail end of M-PESA. *Savings and development*, pp.219-252.
[3] Maurer, B., Nelms, T.C. and Rea, S.C., 2013. 'Bridges to cash': Channelling agency in mobile money. *Journal of the Royal Anthropological Institute*, 19(1), pp.52-74.

2.2 Notable FFS features for ISM users

The QuIP study findings supported many of the assumptions made by FSPs about what product characteristics would encourage uptake of their services by ISM users, in addition to the agent engagement and marketing strategies which made up part of these offers. The table in the Appendix to this report lists which findings were supported from the QuIP studies and the features listed below were identified by QuIP studies across virtually all interventions. This evidence, however, did not always relate specifically or exclusively to the products which were part of the SatF programme. For example, 'increased security' was also mentioned by respondents with reference to use of mobile money services and personal transfer services not mediated by savings groups. Similarly, a wider agent network was discussed in relation to both ISM linkage products *and* personal financial accounts. In sum, these factors apply to broader financial services products, use of which is slowly growing amongst some customers.

Security and transparency

The security of funds was a frequently stated benefit of those who had opted to use formal financial services across both ISM users, and FFS users. Amongst group savers, there was certainly evidence that the formal savings group accounts meant increased safety compared to saving in a collective lock box, but encouragingly some also saw beyond the group accounts the opportunity to save separately in personal accounts – reassured by the security they have seen with the group accounts, while simultaneously exchanging cash in groups.

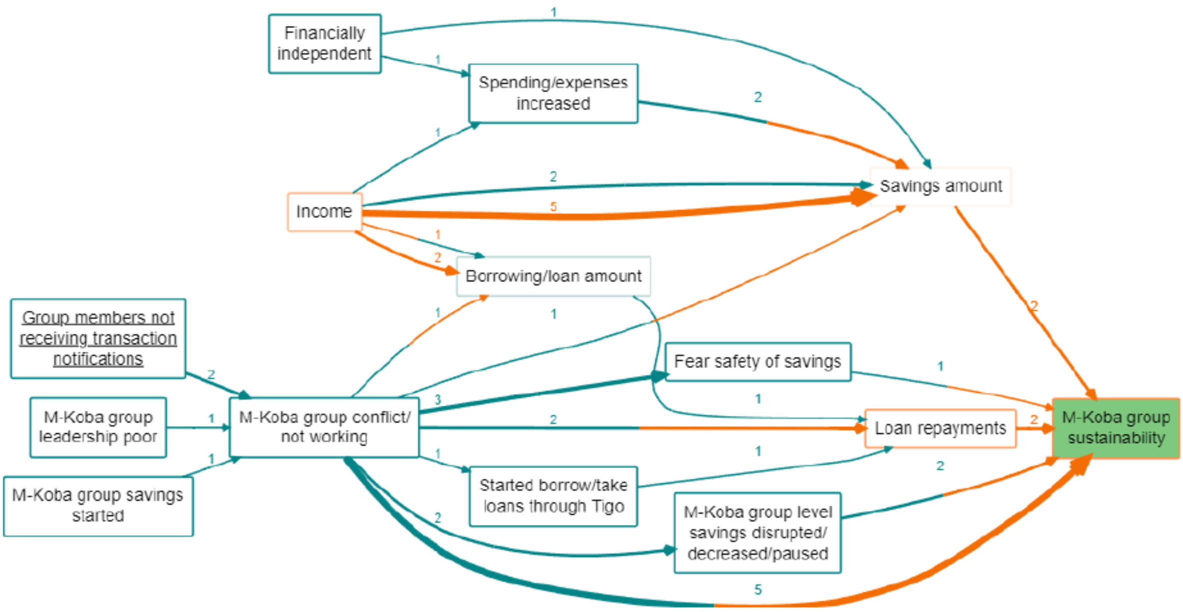
> *I opt to save in my saving account for added security and safety of my money. Within my group I save the same amount as before but now I also save in my personal account while before I was only saving with the group. [...]I have opted to save in two places (group and bank) for added security of my funds by spreading risk.* ***TEE22, AM6***

Having cash banked elsewhere only feels secure if customers feel that they can easily check and access their accounts. Features such as text message notifications were innovations which helped with this, mentioned particularly in the most recent studies in Tanzania for Pamoja, EazzyKikundi and M-Koba, and in the 2022 Ghana DSS study.

> *We accepted and decided to use MKoba for our group savings because we felt our money is safe. Individually if you want to withdraw any funds all that is needed is the group officials' approval in the system and you can access your funds.* ***TTM21, AM6***

However, the testimony from an inactive M-Koba group in the same Tanzania 2021 study shows what happens if this system breaks down. Whilst a decrease in income available for saving is clearly a strong driver, there are mentions of group members not receiving notifications and conflict within the group leading to mistrust around the safety of savings.

Figure 6: TTM21 Issues with sustainability in a peri-urban M-Koba savings group



Causal Map ref no. 6074

Moves towards mobile banking were still at an early stage and there were still relatively high numbers of customers who felt worried about using digital services, and in most savings groups individuals are still depositing money in cash, either via an agent or at a bank – rather than making digital transfers from their own accounts.

Fear of the unknown regarding financial services for personal use was particularly evident in the most recent Ghana DSS study where there was evidence that customers **are using mobile money** for work, but not willing to move much further into other digital financial services without further training and reassurance.

> *I don't use any digital finance service because I don't like it. My technical knowhow about such services e.g. mobile money is low and with the way the fraudsters have been stealing people's money I decided not to use it. I would like to learn how to use some of these digital services because they make life a bit easy, but the thought of fraudsters always make me always rescind my decision.* ***GDD22, NL5***

> *I know there are a lot of them available, but I am not interested in any of them because I don't trust them. I have seen how people who work with financial products are treated and it doesn't in any way encourage me to work with them.* ***GDD22, NT2***

> *Aside mobile money I don't use any financial service because I am not conversant with those services. Moreover, I have low technical know-how on that.* ***GDD22, AL12***

Convenience and ease of access

Having the ability to access funds through agent networks, as well as being able to send money from mobile phones, was seen as a motivating factor to open digital savings accounts for ISM users. This was a prominent finding for customers with existing businesses with business partners located far away, requiring access to transfer services from financial accounts.

> *Initially we used to bring our savings to the group meetings in cash. This changed around a year ago when we opened the NMB bank account. [...] There are also some who opt to bank their money through the bank agents who are now very many and easy to access. These are the main changes that have happened in how we save.* ***TNP21, PHFG2***

> *"While before we were going to buy electricity at the Tanesco shop, now we use the mobile wallet, and this saves us time. These are good changes."* ***TTM20, SUF72***
>
> *"I pay school fees through the bank. Previously we were paying fees through cash to the school bursary and we were given receipts. I think money security is the reason for the change. These changes are good because by paying through the bank I feel secure. Even if I lose the bank slips, when I take a bank statement I can prove the payment."* ***TTM20, MRF42***

Account and transfer fees

While not a finding mentioned across all studies, several ISM users stated that low fees on transfers was an important motivation to open an account and to use transfer services. Some services started with low or no costs, but then increased.

> *I make my order from Dar es Salaam, and I pay by cash. When I do not go I would pay through mobile money but because of transaction charges I now pay through the bank which is a bit cheaper.* ***TEE22, MWK31***

This also came up in the 2021 Tanzania M-Koba study; an increase in mobile money transaction / transfer costs was a barrier for some respondents who reported that this had led to reduced use of mobile money transfers. However, a minority of respondents said that they continued using mobile money despite the cost increase due to the ease of use and convenience, and even those who had moved back to cash acknowledged the inconvenience – indicating that more ISM users may value the benefit over the cost in future as mobile money services become more widely used.

> *Most of my payments now are in cash, bank transfers and mobile transfer. Though now I try to avoid mobile money transfers because of the recent increase in transaction charges. So now I mainly rely on payment for my business stock and my construction equipment through bank transactions to enable me to keep records. … The reliance on banks for payment processes is a bad change as it is cumbersome and time consuming because I have to physically go to the bank.* ***TTM21, AM6***

In the 2022 Ghana DSS study, although this was not the product being assessed, business owners who were otherwise suspicious of digital products had accepted the cost of taking mobile money payments as this was a convenient and accepted method of payment – particularly post-Covid, so there are signs that complete objection to fees is reducing.

Agent network

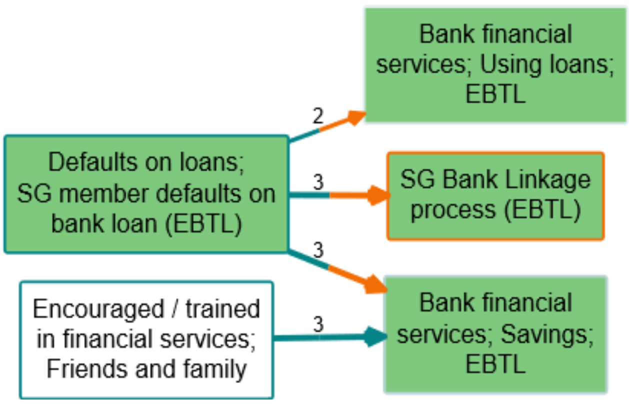
For the NMB Pamoja savings account and the EBTL Inua savings group account, the widespread access to funds based on the large agent network was seen as a further factor that strengthened ISM users' engagement with linkages and supported their savings group activities. Given the remote locations of many of the customers, the proximity of agents reduced travelling to bank outlets.

> *The mechanism of saving for our group account is via bank or Agent cash deposit. [...]I put my savings in the NMB Pamoja account of the family group [...]As a group we chose this way because it is easy as bank agents are everywhere.* ***TNP21, UL2***

2.3 Possible barriers to formal financial services

The research also identified several barriers to adopting - or continuing to use - formal financial services. The two most often cited factors relate to debts and defaults, arising both from personal experience with defaulting on loans, fear of defaulting on loans and fear of default in savings groups. This was particularly prominent across savings group loan products, in which if one member defaults on a loan the entire group is no longer able to access loans from the FSP.

Figure 7: TEE22 / Influence of defaults on using formal financial services



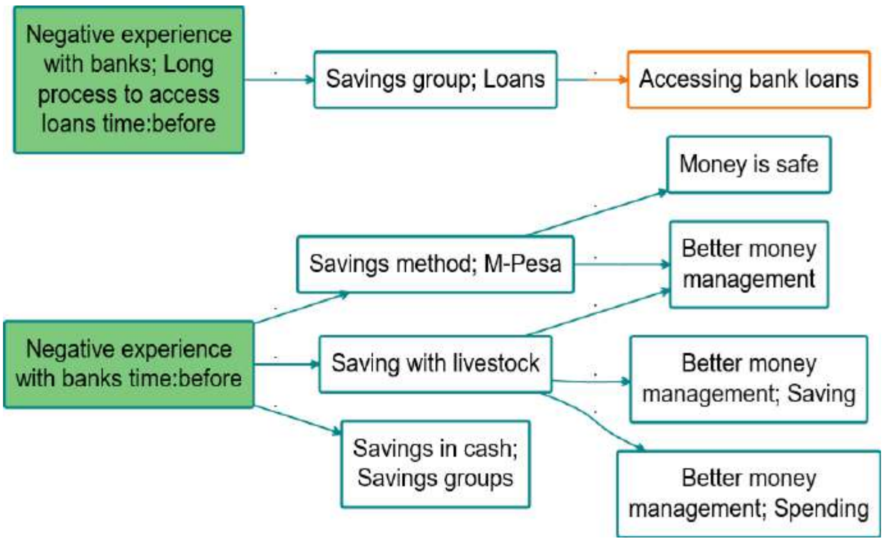
Causal Map ref no. 1299

Likewise, lengthy requirements and procedures for opening accounts with FSPs were frequently cited by ISM users as a reason for not using formal financial services. The studies found this to be the case for both personal services and those set up through ISM linkages.

I have however borrowed from the bank [NMB]. It is now very difficult compared to before as the process is very cumbersome. You have to have collateral and references. The repayment is through cash deposit. I typically borrow to boost my business Capital and for emergencies. **TNP21, UH6**	*I have personally borrowed from NMB bank and the amount I borrowed has not changed because I borrowed once and I have not borrowed again, the main reason for not borrowing again is the existence of long procedures during asking for loans. Most of the time I request for a loan for my business and some other emergencies that occur in my life.* ***TNP21,*** **UH3**

The green boxes in Figure 5 are tagged with 'time:before', indicating that these were statements referencing an experience in the past. This map illustrates how difficult on-boarding requirements and previous negative experiences, prompted ISM users to save with livestock, cash or mobile money rather than using bank accounts. Rather than accessing loans through linkages, many of the savings group members in this study also returned to accessing loans informally through their savings groups.

Figure 8: TBK22 / Impact of negative experiences with formal financial institutions



Causal Map ref no. 1057

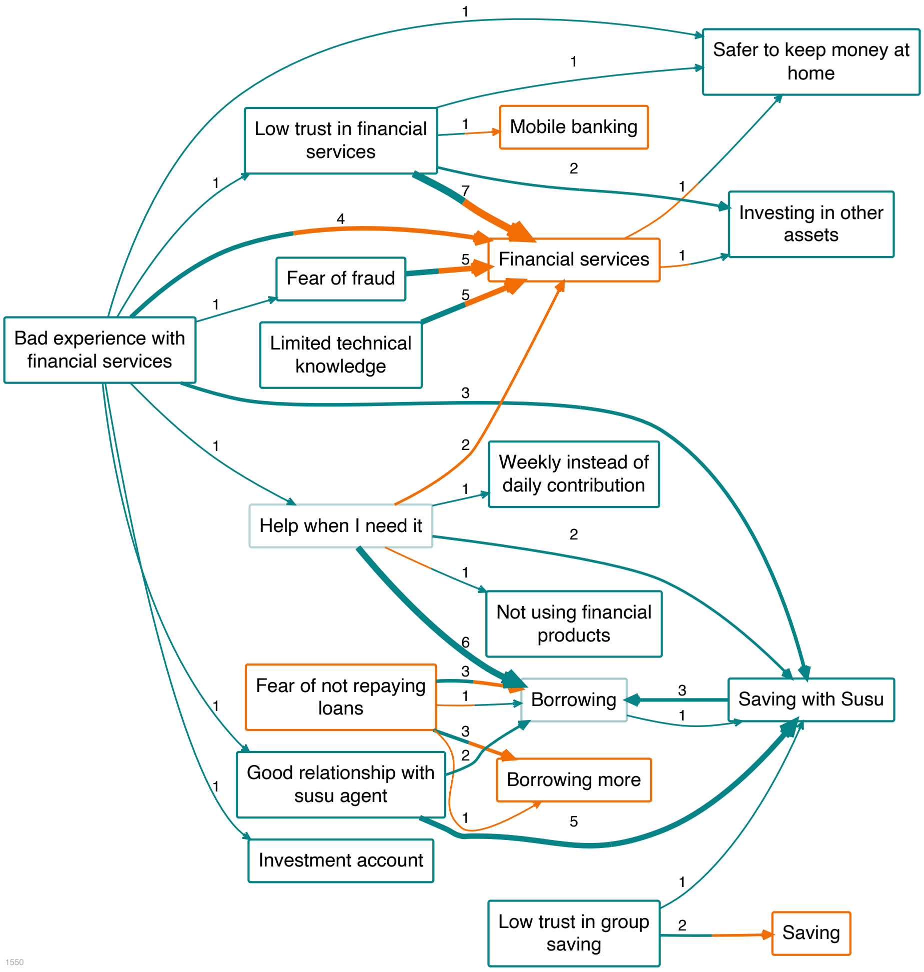
Taken together, fear of defaults and stringent requirements are major impediments to wider use of FFS. This finding concurs with research from other sources that highlights the uneven power dynamics, unaligned goals and divergent values of individuals and financial institutions.[4] For individuals, financial practices are embedded in social relational connections, where relationships are key in providing flexible and negotiable access to sources of financial support. In contrast, the formal financial sector

[4] Johnson, S. and Krijtenburg, F., (2018). 'Upliftment', friends and finance: everyday exchange repertoires and mobile money transfer in Kenya. *The Journal of Modern African Studies*, 56(4), pp.569-594.

limits relationships through a focus on transactions and functionality which may appear efficient but reduces their ability to respond to individuals flexibly. Stringent requirements for opening accounts and strict repayment terms are interpreted by individuals to be inflexible and non-negotiable - precisely the opposite of the types of relationships that form their wider social reality.

The most recent study in Ghana contains reference to several similar barriers to take up of formal financial services, including fear and mistrust of finance products due to bad experiences, a fear of not being able to repay loans, a feeling that they lack enough knowledge about financial products to use them, and a lack of flexibility from formal institutions when they need help - in comparison with susu companies where they have a personal relationship with the agent.

Figure 9: GDD22/ Barriers to use of financial services



Causal Map ref no. 1540

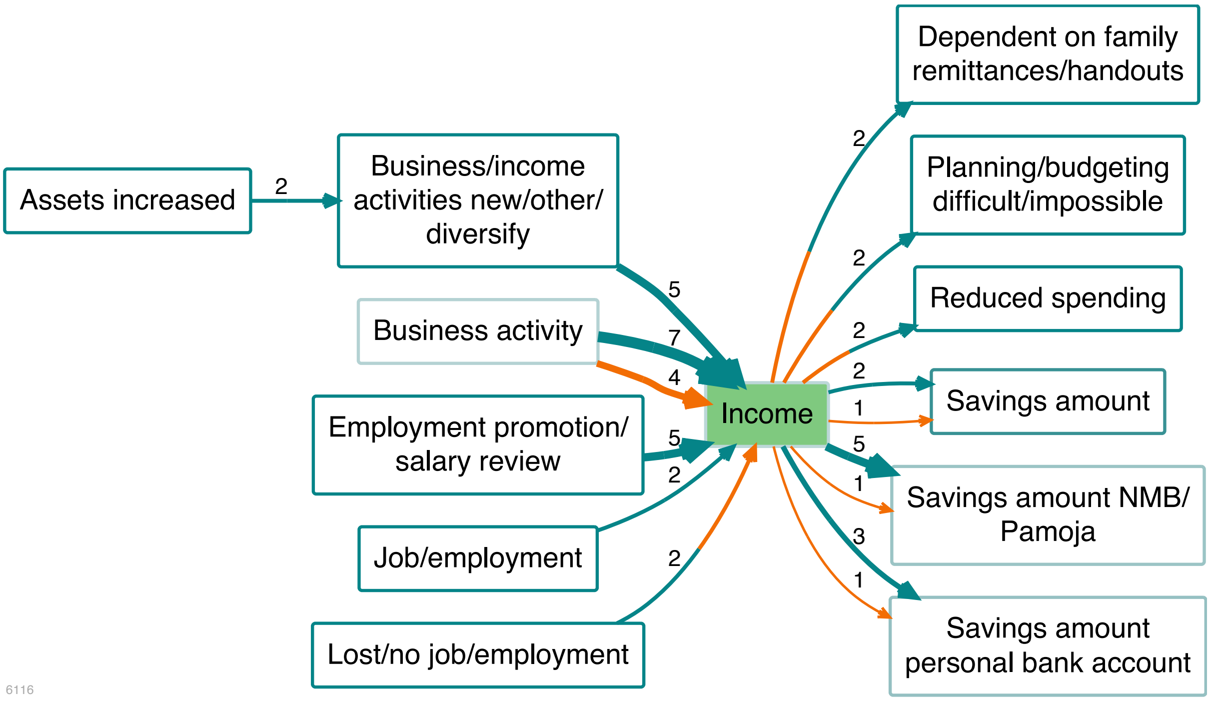
A trusting relationship with susu agents was critical to people's choices about where they saved or borrowed in the GDD22 study. Bad experiences were not limited to formal institutions, but also to susu agents who had disappeared with savings, so a relationship with an agent based close by who they saw regularly was key to the decision to save, and consequently to borrow. These susu agents were often cited as proving 'help when I need it' and flexible repayment options based on their personal circumstances.

3. Further insights into pathways to impact

3.1 The complexity of access to and use of financial services

The short gap between roll-out of specified service innovations by FSPs and several follow-up QuIP studies limits the scope for drawing firm conclusions about their use and impact. However, the overall impression that emerged from the studies is that induced changes in the financial practices of intended ISM users was often small and very context-specific - being heavily dependent on individuals' diverse income generating activities and levels of income, for example. There was also often a two-way relationship between use of financial services and income. In the 2021 QuIP study for Tanzania NMB's savings product, 'Pamoja', for example, increased income associated with new livelihood activities was found to facilitate linkages and arise from them. But for many individuals, opening individual accounts, making mobile payments, applying for loans directly at the banks, and using mobile banking, were all happening anyway, triggered by opening individual bank accounts but not obviously as a direct consequence of the ISM linkage innovation being evaluated.

Figure 10: TNP21 / Drivers and consequences of increased/decreased income



Causal Map ref no. 6116

Figure 10 illustrates these points with a causal map showing factors that led to increased income (blue arrows) and decreased income (orange arrows) along with the associated outcomes. Changes in employment, salary rises and new business activities are all causally related to a rise in income, and this affects saving behaviour.

Other studies have also found that a rise in income can actually reduce members' motives for using FFS. For example, the study of BizyTech's Kilimo Akiba product found that a rise in income led ISM users to revert to informal, more familiar savings practices.

> *There is a change in the way I manage my money. In the past, I did not have enough income to save. Last year I started saving by buying cattle and keeping it as my saving and whenever I needed money, I would sell… I feel that I have more control over my spending and saving than before.* ***TBK22, LIM10***

Amid the diversity in livelihood strategies and financial activities all the QuIP studies indicate that most ISM users have access to and use multiple financial services at the same time, including individual services and those mediated by savings groups. This is illustrated by Figures 11 and 12, which also reveal variation in respondents' ranking of the importance of different services. At the end of interviews respondents were asked to list any financial institutions they had links with and rank them in order of importance/ usefulness to them, with 1 being the most important. The two tables below are examples from studies where the bank behind the SatF innovation was mentioned most frequently, but never in the most important position relative to other providers. Both of these had agents who provided a bridge between the bank and users, but local VSLAs remained the most important connection for these ISM users. First, the Tanzania EBTL EazzyKikundi study.

Figure 11 TEE22 / FSP ranking according to respondents

	Rank 1	Rank 2	Rank 3	Total mentions
Equity Bank	0	7	2	9
NMB Bank	2	0	4	6
VSLA	4	1	1	6
Tigo Pesa	0	3	2	5
VSLA - Jitegemee SILC	2	2	0	4

The table below is from the Tanzania Kilimo Akiba study.

Figure 12: TBK22 / FSP ranking according to respondents

	Rank 1	Rank 2	Rank 3	Total mentions
Kilimo Akiba	2	3	1	6
Twende kwa pamoja VSLA	3	1	1	5
AMCOS	3	0	1	4
Bethel Group	3	1	0	4
Faraja VSLA	1	3	0	4

Figure 13 further illustrates the point with a list of the financial practices of one savings group with links to EBTL. This is far from an exhaustive list but should nevertheless be considered an important point for FSPs which compete, not solely against other products and FSPs, but against a range of informal financial services that are often deemed more efficient or safer during turbulent economic periods. To best compete against these, it falls to FSPs to offer customers advantageous price structures, increased security for finances, and complementarity with existing informal financial practices.

Figure 13: TEE22 / Range of savings methods used by respondents

- Borrowing from savings groups (often several simultaneously)
- UPATU (daily cash merry go round)
- Kibubu (money box)
- Riders’ union (Boda Boda union)
- SACCOs
- Storing produce as a form of savings
- MKOBA
- Cash in the home
- Livestock
- Investment in properties
- Banks
- Mobile money accounts
- Buses (for transfers)

In addition to using a range of different financial services, many respondents also indicated that the list of services they used also varied over time. For example, poor rains and crop yields would prompt farmers to scale back their borrowing, even withdrawing from well understood and trusted formal financial services and reverting to reliance on family and friends for loans. That farmers scale back savings when faced with economic downturns flies in the face of the conventional narrative in financial inclusion (including financial literacy) interventions, which tend to assume that financial services help those on low incomes to weather income or consumption shocks. But such behaviour is consistent with the insight that financial services reflect and respond to individuals’ need to manage their social relationships.

3.2 Digitisation of ISMs and preference for individual and group accounts

Digitisation of ISMs is widely assumed to have positive effects on access, security and flexibility in use of savings. The QuIP studies, however, revealed that many ISM users still preferred cash-based transfers between savings members, and retained a preference for banking at physical outlets with cash rather than depositing digitally through agents. These suggests digitisation brings costs as well as benefits, and that deeper enquiry is needed to understand the overall value. The study of TPB's digital savings product in Tanzania, for example, heard from a group who decided to discontinue their use of the digital account in order to focus on growing their capital by utilising all group savings for internal on-lending to members (with interest) at their weekly meetings.

This finding challenges the assumption that ISMs are the most effective route through which to offer digital financial services when many if not most ISM users actively also make use of financial services independently of their savings group. The quote below provides an illustrative example of a savings group member who was using several services simultaneously and preferred to use some in cash and others through FFS.

> *My borrowing has increased with my many activities. I borrow from my groups and I also borrow from my employee salary account. The salary account allows you to take advances that are deducted from your pay. The group I borrow using the M-Pesa platform for the M-Koba while the other group I borrow in cash through a form application.* ***TNP22, PL4***

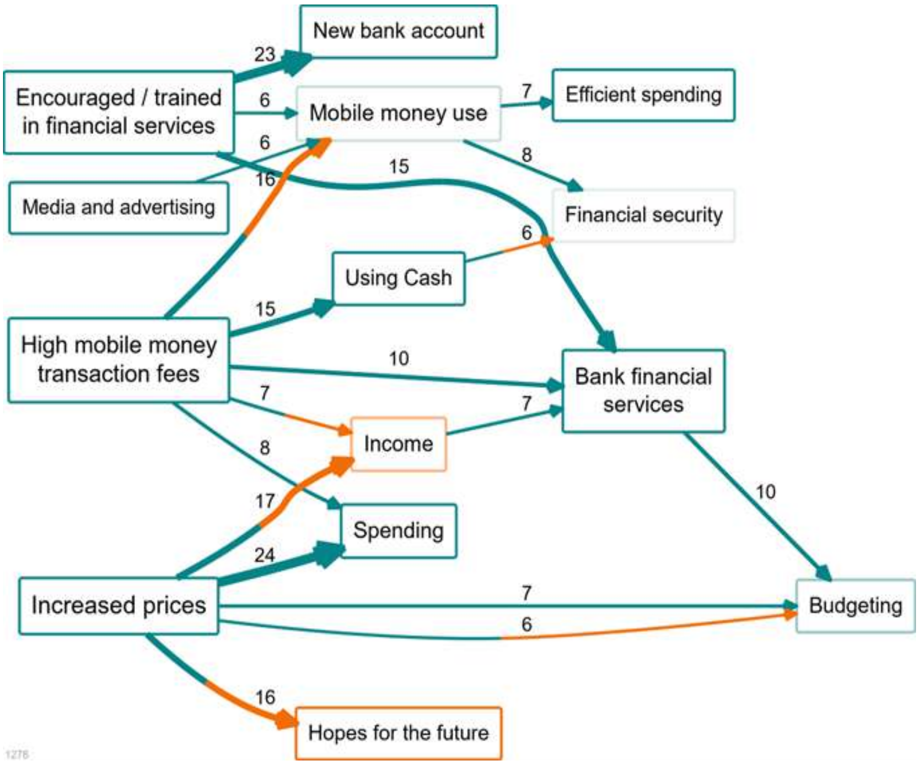
In some studies, notably those of the M-Koba, Pamoja and EazzyKikundi studies, there is evidence that group training and support from agents has enabled ISM users to engage with FSPs in a safe space, trying out new services and learning from others in the group. However, there is less evidence of the assumed development of this into a more independent relationship at an individual level. Fear of the unknown and a preference for a personal service still seem to deter people from taking up use of new digital services. The 2022 study in Ghana contained many references to people using mobile money in their business as it was perceived to be safe and convenient (although a recent government levy on electronic transactions had caused some, but not all, to limit their use of the facility), but few were tempted to use other digital services. Some had started to use mobile banking, and appreciated mobile notifications from their bank, but most were anxious about moving away from cash deposits and not confident they had the technical experience to use digital services. This reflects the wider discussion of the relative merits of digital money and cash. Research elsewhere[5] reveals that the display of cash can have important symbolic properties, such as when providing cash gifts in social ceremonies, or using cash in savings groups as ways to provide symbolic feelings of group-belonging. That cash-based transfers across members may be preferred, while some members are actively using FFS for other activities, demonstrates that cash has another purpose, one which may be at odds with the values of financial institutions.

[5] Kusimba, S. (2021). *Reimagining Money: Kenya in the Digital Finance Revolution*. Stanford University Press.

3.3 Additional influences on the impact of financial services

Adding to the complexity of understanding the impact pathways of ISM linkages, is understanding the ways in which confounding variables, or contextual influences, affect the ability for low-income savers to access and use financial services. This was highlighted through use of the QuIP which asks respondents to track back from perceptions of change in different domains of their life to all possible causal explanations for them including unexpected livelihood shocks such as untimely adverse weather. All the QuIP studies revealed the importance of such 'external' factors to access and effective use of financial services. For example, Figure 14 shows the impact that the recent unexpected increase in the cost of living in Tanzania had on respondents' lives.

Figure 14. TEE20 / Overview of external impacts on financial practices in Tanzania

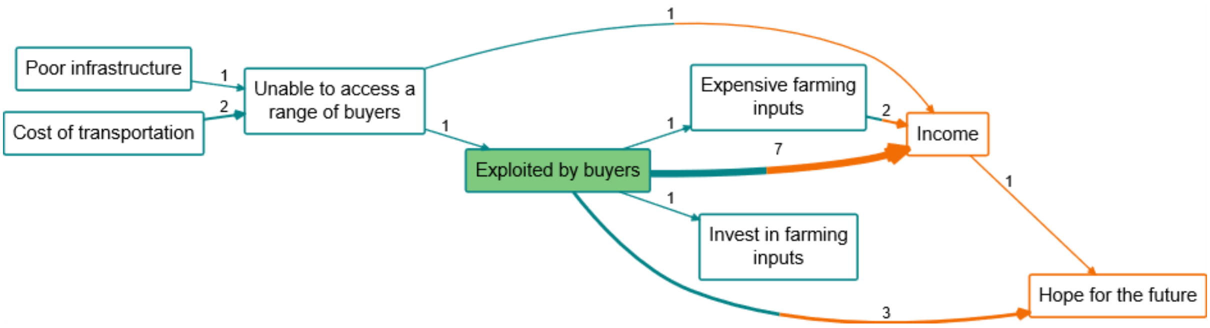


Causal Map ref no. 1278

In Figure 14, the factors that have the largest impact on financial services are high mobile money fees, and a general increase in prices. Increased prices were caused by a variety of external shocks, such as climate change impacting the weather (and thereby crops), the war in Ukraine impacting the cost of goods in Tanzania, and COVID 19 impacting the supply chain of goods coming to Dar es Salaam. These cost-of-living increases had subsequent consequences on spending, income, and savings group members' hope for the future. When taking these factors into consideration, they represent the impact of external influences, and indicate where in the impact pathway ISM users might rely, or reduce their reliance, on FFS.

Figure 15 shows a similar narrative. In this QuIP research (Kilimo Akiba, Tanzania 2022), farmers were asked a series of questions regarding their financial practices and the extent to which an ISM linkage product had an impact on their farming yields and income. The strongest causal factor that emerged was a common challenge farmers faced when attempting to offload their produce. The transport infrastructure being limited, many of the farmers were faced with no choice as to where to sell their produce. As a result, many had to rely on exploitative buyers who used the poor transport infrastructure to their advantage. In this example, the impact pathways of ISM linkages were limited by these contextual factors and not able to mitigate these challenges.

Figure 15: TBK22 / Impact of infrastructural factors on individual outcomes



Causal Map ref no. 1043

The war in Ukraine, Covid-19, and erratic regional weather patterns have likewise led to savings group members being increasingly reluctant to engage in formal financial services across the financial sector providers. While these factors cannot be directly addressed by FSPs, they should nevertheless be considered key elements when attempting to pinpoint the impact pathways of financial linkages. Rather than using the product as the focal point, these studies focused on where in the impact pathway the use of financial services provides individuals with opportunities to weather or respond to external factors.

4. Final reflections

SatF operated in diverse contexts and sought to augment a wide range of individual as well as group mediated financial services already in use. This helps to explain why generalisation across the QuIP studies about the client level effects of financial innovation proved difficult. However, one generalisation that can be made is that outcomes cannot be defined solely in terms of a secure and smooth (or financially smoothed) flows of income to meet material needs. It is also important to assess how financial services can upset as well as stabilise customers' wider social relationships.

The wide variety of financial practices observed - and the observation that many ISM users continued to prefer cash - indicates that there is still a gap between how FSPs and ISM users think about and value financial services. For ISM users, using cash may be a method which is quicker and more flexible in navigating social ties, and provides more negotiability in creating or changing terms of financial services and the connections between members in the group[6]. Financial practices involving loaning money and saving are also means by which people reinforce valued relationships, group identities and a sense of belonging, including through dependency or domination[7]. Going into debt can also serve as a form of inclusion, in which the bonds created by owing someone money reinforce group membership. When individuals experience default on loans with formal financial service providers, in contrast, they are often reminded of the gulf between their own values and those espoused by the lender.

The finding that individuals often prefer individual digital savings accounts, rather than digital group savings accounts or group mediated savings further highlights the influence of customers' own established practices and preferences. Accumulating capital in many low-income communities can be viewed as a socially transgression[8], and accumulating savings on formal financial accounts as weakening local circuits of social value. Consequently, using both personal financial accounts *and* belonging to cash-based savings groups provides a means to ensuring that one is contributing to social value, and simultaneously attending to one's own entrepreneurial ambitions. In this scenario, ISM users are more likely to be shaped by practices which involve borrowing from each other, often in cash, as opposed to linking with FFS - seen as an outside actor with limited capacity to become socially embedded in local networks.

Similar conclusions can be drawn from findings relating to the importance of FSP agents in reinforcing the linkages to FSPs. When engaging with FSP actors, ISM users engage with a person with potential both to augment local social networks and relate to them in a culturally sensitive way. Through their agents, financial institutions can become approachable, with users' confidence in services tied into their confidence in the agent. While this finding supports the importance of using agent networks, it also questions the extent to which ISM linkage products can have lasting impacts, or scalability, without large operational budgets to sustain wide networks of agents and facilitators.

These findings suggest that identifying the full impact pathways of specific financial products and innovations entails expanding the framework of analysis to give more weight to social and relational as well as economic and material aspects of wellbeing, and a wider range of factors affecting change.

[6] Johnson, S. and Krijtenburg, F., (2018). 'Upliftment', friends and finance: everyday exchange repertoires and mobile money transfer in Kenya. *The Journal of Modern African Studies*, 56(4), pp.569-594.

[7] Shipton, P.M., 2007. *The Nature of Entrustment: intimacy, exchange, and the sacred in Africa*. Yale University Press.

[8] Guérin, I., Morvant-Roux, S., & Servet, J. M. (2011). *Understanding the diversity and complexity of demand for microfinance services: lessons from informal finance*. Handbook of microfinance, 101-122.

Conversely, a narrow focus on product-specific impact assessment risks both missing the full effects of financial services and their wider relevance to ISM users lives and livelihoods[9]. As Collins et al. (2019) write: *'the problem is that we are looking at only a fragment of the overall picture when we focus on only one pathway between a financial tool and improvements in people's lives*'. Findings from the QuIP studies are strongly supportive of this statement and vindicate the use of impact evaluation methods that are "exploratory" as well as "confirmatory" in scope[10].

Product design choices made to strengthen FSP to ISM linkages affecting access, transparency, security, and transaction costs do influence uptake and use of the services. However, neither the financial products themselves nor their relationship to informal savings mechanisms are necessarily the most important driver of how financial services affect customers' livelihoods and lives. To more fully and accurately understand the impact pathways of financial services a deeper appreciation of personal, social and contextual factors is also needed.

[9] Collins, D., Lason, L., & Butkus, A. (2019). *Pathways to a better life: The intricate role of digital finance in reaching the sustainable development goals*. Focus note: UNCDF.
[10] Copestake, J. (2014). Credible impact evaluation in complex contexts: confirmatory and exploratory approaches. *Evaluation*, 20(4):412-427.

Appendix 1: Findings table

✓	Evidence found to substantiate this claim
?	No evidence available to test this claim
X	Evidence found to refute this claim

Findings of causal links	Tanzania 2020: TCB M-Koba & EBTL (TTM20/TEE20)	Zambia 2020: Madison Finance (ZMM20)	Tanzania 2021: TCB M-Koba (TTM21)	Tanzania 2021: NMB (TNP21)	Tanzania 2022: BizyTech (TBK22)	Tanzania 2022: EBTL (TEE22)	Ghana 2022: DSS App (GDD22)
Facilitators' impact on linkages							
Financial training drives FFS (savings, transfers, borrowing)	✓	✓	✓	✓	✓	✓	✓
Facilitators improve group functioning	✓	✓	?	✓	✓	✓	?
Savings group facilitators encourage groups as safe learning spaces (such as access to loans)	✓	?	✓	?	?	✓	?
Facilitator training leads to better money management	✓	?	?	?	✓	✓	?
Lack of agent support leads to reduced use of FFS	?	✓	✓	✓	?	✓	?
Informal and formal savings: cause and consequences							
Saving in a financial account (personal account) leads to better money management practices	?	✓	?	?	?	✓	✓
Savings group membership increases savings	✓	✓	?	✓	?	?	?
Saving in a financial account leads to ease of transfers through bank transfers – or using mobile banking	?	✓	?	?	?	✓	✓

Findings of causal links	Tanzania 2020: TCB M-Koba & EBTL (TTM20/TEE20)	Zambia 2020: Madison Finance (ZMM20)	Tanzania 2021: TCB M-Koba (TTM21)	Tanzania 2021: NMB (TNP21)	Tanzania 2022: BizyTech (TBK22)	Tanzania 2022: EBTL (TEE22)	Ghana 2022: DSS App (GDD22)
Income impact in linkages							
Increased income leads to increased household expenditure (ie. Nutrition)	?	✓	?	?	?	✓	?
Increased income leads to increased savings in savings groups	✓	?	?	✓	X	?	?
Increased income leads to investment in businesses	✓	✓	?	✓	✓	✓	✓
Increased income leads to increased savings in formal financial account	✓	✓	✓	✓	X	✓	✓
Income levels and business practices highly influential in using FFS	✓	✓	✓	✓	✓	✓	?
Lack of income means less likely to use FFS	✓	✓	✓	?	✓	✓	?
Reduced income leads to less savings	✓	✓	✓	✓	✓	✓	?
Agent specific features							
Digital technology renders FFS agents' activities easier	?	?	?	?	?	?	✓
Improve agent float amounts	?	?	?	?	?	✓	?
Agent incentives such as bonuses/commissions with targets helps agent retention	?	?	X	X	?	X	✓
Distance to groups is a major concern	✓	?	✓	✓	?	✓	?
Borrowing cause and consequences							
Increased savings leads to increased borrowing	✓	✓	?	?	X	?	?
Savings group membership increases borrowing	✓	✓	?	?	?	?	?
Increased borrowing leads to investment in businesses	✓	✓	?	✓	✓	✓	✓

Findings of causal links	Tanzania 2020: TCB M-Koba & EBTL (TTM20/TEE20)	Zambia 2020: Madison Finance (ZMM20)	Tanzania 2021: TCB M-Koba (TTM21)	Tanzania 2021: NMB (TNP21)	Tanzania 2022: BizyTech (TBK22)	Tanzania 2022: EBTL (TEE22)	Ghana 2022: DSS App (GDD22)
Product features on drivers and barriers in linkages							
Digital FFS is not readily adopted by ISM users	?	?	?	?	✓	✓	✓
FFS increases security of funds	✓	?	✓	✓	✓	✓	✓
Ease of borrowing from FFS linkages	?	?	✓	?	?	?	?
Ease of access leads to better money management	✓	?	✓	?	?	✓	✓
Ease of access	?	?	?	✓	?	✓	?
Transparent notifications leads to better group functioning	?	?	✓	✓	?	✓	✓
Prefer individual accounts over group accounts	✓	X	?	✓	?	✓	?
Low fees on accounts	?	?	?	✓	?	✓	?
Interests on group and individual accounts dissuades ISM users from using accounts.	?	✓	?	?	?	✓	?
FFS leads of easier/more efficient savings	?	?	?	✓	?	✓	?
Wide agent network	?	?	?	✓	?	✓	?
Perception of company driving use	?	?	X	?	✓	?	?
Liquidity management improved through the use of FFS	?	?	✓	?	?	?	✓
Savings groups do not incentivize personal accounts	?	✓	?	?	?	✓	?
Difficult onboarding requirements / challenge in acquiring loans	?	?	✓	✓	?	✓	?
Problems/issues with products leads to alternative practices	?	?	✓	✓	✓	✓	?
The financial product mirroring existing informal products has led to FFS uptake	?	?	?	?	?	?	✓

Findings of causal links	Tanzania 2020: TCB M-Koba & EBTL (TTM20/TEE20)	Zambia 2020: Madison Finance (ZMM20)	Tanzania 2021: TCB M-Koba (TTM21)	Tanzania 2021: NMB (TNP21)	Tanzania 2022: BizyTech (TBK22)	Tanzania 2022: EBTL (TEE22)	Ghana 2022: DSS App (GDD22)
Defaults, debts and other issues that impact informal savings linkages							
Default or debt (or fear of) has led to reduced use of FFS	?	✓	✓	✓	✓	✓	✓
Negative experience with banks impacting on linkages	?	?	?	?	✓	✓	?
Friends and family encouraging members to use FFS	?	?	?	?	?	✓	?
Savings group problems such as defaults or fraud or arguments led to decreased savings and borrowing	✓	?	✓	✓	✓	✓	?
Literacy impacting FFS use	?	?	✓	✓	?	✓	?
Cash is still the main method being used in inter-member transactions	✓	?	?	?	✓	✓	N/A

Findings of causal links	Tanzania 2020: TCB M-Koba & EBTL (TTM20/TEE20)	Zambia 2020: Madison Finance (ZMM20)	Tanzania 2021: TCB M-Koba (TTM21)	Tanzania 2021: NMB (TNP21)	Tanzania 2022: BizyTech (TBK22)	Tanzania 2022: EBTL (TEE22)	Ghana 2022: DSS App (GDD22)
External factors impacting informal savings linkages							
Cost of living increase led to a decrease in income/ increase in spending	✓	?	?	✓	✓	✓	?
COVID 19 leads to decrease in income	?	?	?	✓	?	✓	✓
Adverse weather events led to a decrease in income	✓	?	?	✓	✓	✓	?
Proximity to banks reduced linkage potentials (preference in banking at physical branches)	✓	?	✓	?	✓	✓	?
Allowing time for ISM users to acclimate to products is important	✓	✓	✓	?	?	?	✓
Good Telcom service leads to increased use of FFS	?	?	✓	?	?	?	?
Spending increased/decreased income leads to reorganised budgeting	?	?	✓	✓	✓	✓	?
Lack of transport infrastructure leads to inability to access markets	?	?	?	?	✓	?	?
High mobile money fees leads to reduced MM transfers	?	?	✓	✓	✓	✓	?
Local partnerships between FSPs and councils can minimise efforts required from FSPs	✓	?	?	?	✓	?	?