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Research Brief

INVESTED DEVELOPMENT

IMPROVING INFORMAL SAVINGS GROUPS WITH MOBILE TECHNOLOGY

This research brief is a compilation of blog posts that originally appeared on the Invested Development blog. The series introduces informal savings groups and their benefits, and later outlines the existing inefficiencies. The series concludes with insights on how mobile technology, specifically mobile money and other innovative applications, can enhance the existing functions and pillars of informal savings groups, without compromising their intrinsic benefits.

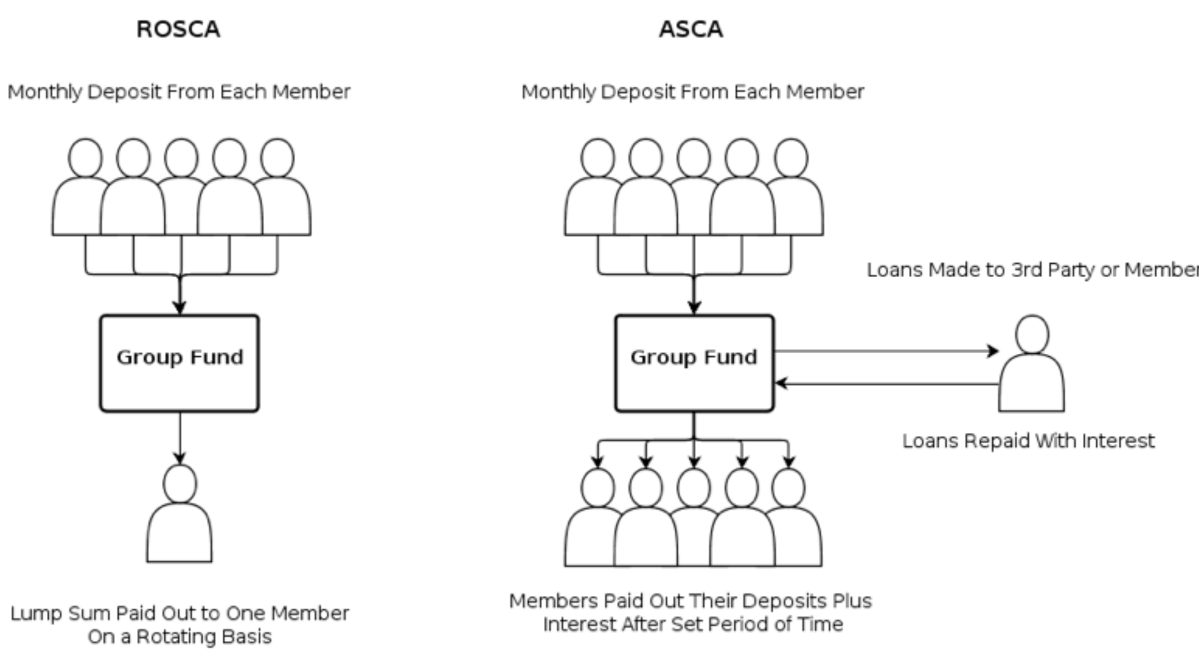
Despite exclusion from what we consider formal banking, many of the "unbanked" have figured out their own ways to save money. Although over 70% of people in emerging markets do not have a formal bank account (Goss, Mas, Radcliffe, & Stark, 2011), an increasing number are participating in informal savings groups. The goal of this research is to explore the effectiveness of informal savings groups. First, we explain how they work and what the existing benefits are. We then explore their inefficiencies and ways the increasing availability of mobile services can provide the opportunity to make them more effective.

What is an Informal Savings Group?

An informal savings group is a social organization formed to help community members save money for specific purposes (either at the individual or community level). The two most common examples are Rotating Savings and Credit Associations (ROSCAs) or Accumulated Savings and Credit Associations (ASCAs). ROSCAs function by taking monthly deposits from each member of a group and then giving the whole monthly sum to one member of the group. The recipient of the monthly sum is based on a predetermined rotation, ensuring each participant will eventually receive a large payout. ASCAs also require group members to make regular contributions. Instead of rotating payouts, the ASCA group fund is used to make loans that are paid back with interest. Loans are made either to group members or trusted third parties. After a certain period of time (often six months to a year) the group fund and its proceeds from interest are paid back to the original members.

Groups have different names and missions across countries. In South Africa, for example, you'll find makgotlas for funeral expenses or stokvels for group purchasing or community entertainment. In Kenya, you'll often find groups designed to save for a large investment that benefits the community, usually investing in a business or the Nairobi Stock Exchange.

Exhibit 1: How Informal Savings Groups Work



Regardless of the name or purpose, most groups have a similar structure and protocol. Members are required to make a small monthly contribution to the community fund. Groups usually have 15-20 members and are governed by a strict set of rules, either written or unwritten, depending on the group's literacy. Breaking the rules is considered "taboo" and comes with social repercussions and possible financial penalties.

Exhibit 2: East African Reported as Members of Informal Savings Groups (FinScope data)

Kenya	11,183,469
Uganda	10,403,243
Tanzania	12,208,503
Rwanda	3,156,218
East Africa Total	**36,951,433**

According to FinMark Trust's FinScope survey, there were roughly 37 million people participating in some kind of informal savings group in East Africa as of 2009. In West Africa, Nigeria alone had nearly 41 million people participating in such groups (Napier, 2009). The value these individuals gain from participation in a savings group includes both tangible economic benefits as well as intangible social benefits.

The Benefits of Informal Savings Groups

Economic Benefits

Reducing Pressures on Free Cash. In emerging markets, an individual's cash flows are highly uneven and cash on hand is subject to the pressures of family and friends. In particular, women experience limited control of their money, too often due to a frivolous or alcoholic husband. Additionally, when free cash is available and a friend or neighbor asks to borrow, it's impossible to refuse to lend. These circumstances make it nearly impossible to save a sum of money large enough to invest in a piece of equipment that would improve a business, purchase materials for home improvement, or make any other large purchase to increase quality of life. Savings allows members to shed the pressure placed on their free cash by husbands, neighbors, and friends. Ultimately, this enables people to commit their surplus cash towards future purchases with the potential to improve their quality of life.

Enabling Access to Funds for Unexpected Life Events. Having access to a financial savings tool makes it possible to access to a pool of capital in case of emergencies. In case of unforeseen illness, members can rely on their group members and the resulting group fund to quickly take out a loan. Ultimately, group members have to repay the loans or end up contributing the same amount over twelve months as if they had saved the money themselves, but participating in a group creates additional flexibility and builds a social structure that creates discipline. Such discipline also enables members to save up for large purchases, since the cash is safely put away for extended periods.

Social Benefits

Informal savings groups in South Africa provide fascinating insight on the importance of social capital to group members. South Africa has the most developed banking sector in sub-Saharan Africa, where 63% of the country has access to formal banking as of 2011 (Khumalo, 2011). Yet, surveys have shown that nearly 90% of members that save primarily through informal savings groups also have a formal savings account (Irving, 2005). These members choose to participate in an informal savings group because the social structure it provides creates benefits that cannot be realized by saving at a bank. There are three key benefits that the group's social structure creates: disciplined saving, strengthened social networks, and enjoyment.

Disciplined Savings. Involvement in a group forces members to set savings goals and meet them each month. The negative repercussions (both economic and social) associated with failing to meet these goals create significant incentive to meet the monthly commitment. Maintaining this level of discipline is much more difficult as an individual, making group membership more appealing.

Strengthened Social Networks. Working together towards the same financial goal as part of a group that meets each month creates strong bonds. It is common knowledge in the Western world that you are more likely to get a job if referenced to a potential employer by someone you both know. This principle works the same way in the developing world. Individuals are able to leverage other members of the group to further create opportunities for themselves.

Enjoyment. It is important not to forget the human aspect of informal savings groups. Groups are formed with trusted friends or family and can often be a perfect excuse to get together once a month to socialize. Beyond just the economic opportunities, savings groups also offer a more enjoyable way to save money in comparison to visiting a stuffy bank branch to make a deposit.

The Inefficiencies of Informal Savings Groups

Despite all of the benefits that an informal savings group presents to its members and the community, there are certain problems that can arise.

Successful financial models, according to Goss, Mas, Radcliffe, and Stark, are convenient, trustworthy, and affordable. Traditional savings groups have been successful for largely the same reasons. They are affordable – there is no transaction cost to participate. They are relatively convenient, as groups tend to be local and meetings are scheduled in advance. In addition, due to their community-style formation, they are founded on trust.

Despite their success and intrinsic benefits, there are a number of problems that are starting to emerge as the nature of communities evolves. In particular, there are three key issues in the areas of trust, inconvenience, and security.

The Inefficiencies

Trust. The issue of trust consists of three central risks.

1. People don't join savings groups because they less frequently know or trust their neighbors. As people migrate to cities and across international borders, trusted family members or companions may be geographically inaccessible through the traditional savings groups model.
2. Bonds of trust are fragile. As in any relationship, trust is easily broken. Add the relationship of 15-20 group members, and the risk is greater. if two members get into an argument, the entire group can diminish. There must be a consistent level of trust, and more importantly, communication among all members during and between group meetings.
3. There is a lack of independent record keeping. Handwritten record keeping can be sloppy, inaccurate, and the cause of disagreements. The social stipulations associated with tracking each member's deposits are very high; all members must be seen depositing their cash or they risk facing exclusion or reputation damage.

Inconvenience. Convenience issues include the need for consistent proximity and regular meetings. Savings groups require physical presence that is not always feasible, convenient, or even in the best interest of the group's financial situation. If someone moves away, it's difficult for them to continue participating. In rural areas, it can be difficult to hold regular meetings due to distance. In times of conflict, disaster, or displacement, the savings cycle will stop at the time when they are needed most.

Security Risk. The method of saving cash presents a high security risk. One person holds the physical cash in a box while another person holds the key. There is a high risk that the cash could be stolen, misplaced, or lost.

Using Mobile Technology to Improve Informal Savings Groups

Individually, savings groups, mobile money schemes, and banks, cannot offer consistent levels of convenience, trust, and affordability. Goss, Mas, Radcliffe, and Stark offer valuable advice: "those wishing to serve poor clients must deliver on all these factors," (2009). Above, we have presented the areas where savings groups lack and present inefficiencies. Injecting the benefits of mobile money, increased communication, and innovative apps into the savings group model can displace the inefficiencies that exist in trust, convenience, and security. Importantly, mobile technology does not compromise the intrinsic benefits of the savings groups.

Mobile Technology and Trust

Access to Trusted Companions. A financial inclusion study by FSD Kenya found that 40% of Kenyans surveyed do not join savings groups because they either don't know or don't trust their neighbors. By using mobile money, trusted companions and family members may be included in savings groups, regardless of location. For example, an extended network of friends and family across different villages can start their own savings group, even though they live apart.

Improved Communication and Trust. Mobile phones strengthen the connections of trust through increased communication between meetings, whether it's a simple SMS message or a more intimate connection over a social network. Group texting, in particular, can add a level of organization and transparency to the savings group agenda, thereby increasing trust.

Improved Record Keeping and Consistent Transparency. Accurate and verified record keeping through a mobile application or log increases transparency for members. Mobile phone-based products have the ability to ensure third party confirmation and receipts providing additional verification and minimizing dependence on handwritten bookkeeping. Simple MFI, mCollector, and ChamaPro are examples of technologies that are built for managing MFI groups that would be equally beneficial for informal savings groups.

> Mobile phone technology also allows potential group members to reach out to trusted members of their social network from different geographic areas to create a group. One example is mChanga, which allows members to establish fundraising campaigns for large, one-off purchases. Users can reach out to family members and friends and encourage them to contribute via mobile money.

Mobile Technology and Convenience

Mobile technology increases accessibility to savings groups across distances, which is more convenient.

The traditional informal savings group model requires regular and consistent meetings. The meetings are designed to bring the members together to make their deposits in front of the group, assurance that every member is participating. Mobile money decreases the need for frequent meetings, as there are solutions that allow deposits to be logged without compromising transparency, as discussed above. This means that members don't have to be present to make their deposit. Mobile money allows members in transact outside of "meeting hours" and improves the effectiveness of daily management, regardless of proximity (Goss et al., 2009). This also means that members can go to work in different areas without giving up their position in the group.

The traditional model requires group members to reference the group passbook in order to see their total contribution to date. With a mobile based tracking system they can query their contribution and have a better understanding of what their eventual payout (in the case of rotating savings groups) will be. Referencing the group's data on a phone is much more convenient than having to locate the group passbook.

Mobile Technology and Security

Mobile money reduces the need for cash, which is the biggest security risk with traditional savings groups.

The most obvious benefit of using mobile money-based deposits is the elimination of cash. In the traditional savings group model, one person is entrusted to hold all of the group's cash in a locked box, while another member holds the key. Saving the money in mobile wallets significantly removes the potential for fraud or theft. "Group funds are commonly considered relatively safer than cash at home… [but] there are reported cases of fraud," (Goss et al., 2009). Saving with a mobile wallet goes much further than cash under the mattress or in the box, whether by a group or individual.

Optimizing Informal Savings Groups with Mobile Technology

With all the successes and benefits of savings groups and mobile phone technology, combining the two creates the potential to improve each, without losing their intrinsic benefits. Using mobile money eliminates exclusion from the group when someone moves away, and in fact can increase savings from that person's continued contribution through remittances. Family members can participate in savings groups, regardless of their location. This is particularly important in areas where families have been displaced. By operating a savings group over mobile money, the group's agenda may continue even during times of conflict or disaster. Most importantly, adding mobile technology to the traditional model doesn't compromise the initial trust foundation, but rather improves it.

The examples of ventures with mobile technologies improving informal savings groups that we mentioned in this post include:

1. ChamaPro
2. SimpleMFI
3. mCollector
4. mChanga

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