Exuus: Using data to demystify savings groups' black boxes

DataHack4FI Innovation Award Season 2
Winner of the Women & Youth
focus prize for Rwanda

Targeting savings groups with a data-management product

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Case Study

In Rwanda, as elsewhere in sub-Saharan Africa, rotating credit and savings associations (ROSCAs) and savings groups are a big part of people's financial lives – especially for women. With just under 1 million individuals making use of savings groups, the segment's size makes it a rival to the formal banking sector, which serves 1.5 million individuals[1] and a key component of the Rwandan microfinance sector. These organisations have become progressively more important in national financial inclusion efforts. They are key in the Rwanda National Financial Inclusion Programme (R-FIP) 2016–2020[2], as well as Access to Finance Rwanda's (AFR) strategy for 2016–2020.[3]

Having played a key role in developing the AFR Savings Group Map in 2016[4], Exuus is keenly aware of the great opportunity that the 36,000 (and increasing) savings groups present in Rwanda. The challenge, however, is that this significant portion of the Rwandan financial sector essentially is a black box. Stakeholders know that it exists and that a lot goes on within it, but they struggle to access reliable data about the activities within this segment. This hampers the financial sector from better understanding and serving this large market. It is ultimately to the detriment of the large portion of Rwandans – overwhelmingly women – who rely on the services of savings groups.

Exuus tackles some of these challenges by offering a digitised savings group platform. The platform assists savings groups in better running their operations, and it assists the broader financial sector community in better understanding and working with the segment.

The company: Exuus

Founded by Steve Shema (CEO) in 2014, and operational since 2016, Exuus describes itself as a software development company with an ecosystem approach. It aims to serve communities through helping them better use their data. Exuus currently offers two products. Cartix is a data-collection and data-management platform to aid any organisation (savings groups and many others) to use their data in the most effective way possible.[5] SAVE is Exuus's digital savings group platform.[6] It targets mostly rural, mostly female savings groups, and it covers the whole of Rwanda. The platform currently has more than 600 individual users. It is described in more detail in "the solution" section below.

The challenge: savings groups present big black boxes

Despite forming such a significant part of the Rwandan financial ecosystem, not much is known about the details and activities of the savings groups segment.

- **Individual members.** Members of savings groups demonstrate, through their membership and activities within the savings group, that they are mature and responsible users of financial services. They could theoretically do much more with their money. However, as their transactions within the savings groups aren't being sufficiently recorded and/or digitised, they cannot access additional services.

- **Individual savings groups.** Individual savings groups represent somewhat of a black box to their management and the NGOs that founded them. Being traditionally mostly paper-based, it is near impossible for management or founders to access real-time data on the performance of the savings groups. Moreover, paper-based data efforts are subject to human error, and advanced analytics of the savings groups and their members is not possible. This stagnates the possible impact that these groups can have on their members' lives.

- **National savings group industry.** Finally, the national savings group segment as a whole contains many unknown factors for the financial sector community. It is difficult to know what goes on within the black box. Stakeholders struggle to find out the detailed profiles of the members of these groups, and the transactions that occur within these groups. This hampers financial inclusion efforts at a national level, which makes it harder to design effective policy and products for the individuals that operate within this segment.

1   Access to Finance Rwanda. (2016). Savings group map. Retrieved on 23 July 2018 from https://sg.bnr.rw/index.html
2   Ministry of Finance and Economic Planning. (2015). Rwanda – Financial Inclusion Programme (R-FIP) 2016–2020. Kigali: Ministry of Finance and Economic Planning. Retrieved from https://info.undp.org/docs/pdc/Documents/RWA/Concept%20Note%20R-FIP_FINAL_LPAC.pdf
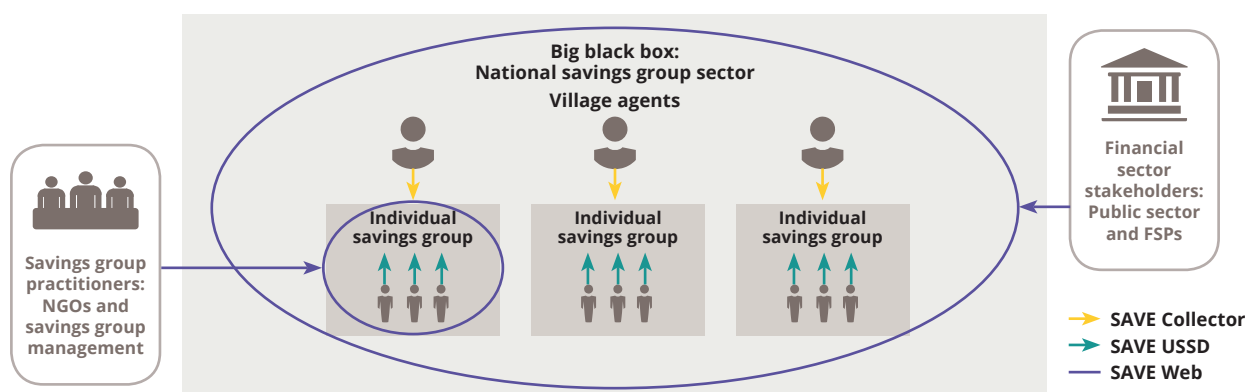3   Access to Finance Rwanda. (2017). Annual report summary 2017. Kigali: Access to Finance Rwanda. Retrieved from http://www.afr.rw/IMG/pdf/afr_annual_report_2017.pdf
4   Access to Finance Rwanda. (2016).
5   See https://cartix.io/
6   See https://getsave.io/

Figure 1: Components of SAVE demystifying the black boxes presented by savings groups

Source: Author's own

The solution: Digitised savings group platform to benefit multiple stakeholders

SAVE consists of three key components (see Figure 1):

- **SAVE Collector.** This functionality is used by SAVE Village Agents. It consists of an Android app that they use to sign up new savings groups and to collect data on them for the platform.

- **SAVE USSD.** Savings group members use the SAVE USSD menu to perform their mobile money payments to their savings group and to request loan pay-outs from their savings group.

- **SAVE Web.** Savings group management, savings group founders (NGOs) and other financial sector stakeholders, such as commercial financial service providers (FSPs) and the government, get access to a web dashboard. Combining the data collected through SAVE Collector and USSD, as well as the country-wide survey data collected by Cartix for the AFR Savings Group map[7], this dashboard provides valuable insights into two black boxes, i.e. either individual savings groups or the national savings group segment as a whole. The level of access that a stakeholder gets depends on their subscription.

The impact:

Different groups of stakeholders benefit from SAVE in different ways:

- **Savings group members.** Individuals within savings groups benefit from the increased security of collecting and storing money digitally

and from the increased transparency of more activities being automatically recorded.

- **Savings group management.** These stakeholders benefit from accessing real-time data on their savings groups' performance and that of individual members, which allows them to better manage activities and cashflow and to improve services offered to members.

- **Financial sector stakeholders.** Government and other commercial FSPs benefit from the ability to better understand and serve this considerable segment of the Rwandan financial sector.

The future: Demystifying individual savings group members

Exuus is in the process of developing a digital credit-scoring model for individual savings group members, using the data of their members' transactions on the platform, as well as for entire savings groups. While savings groups generally do not struggle to identify deserving loan recipients from within their network membership, an algorithm will allow for the automation of loan requests and provisions, leading to increased efficiencies and service delivery. Liquidity management for savings groups as a whole, on the other hand, may be a challenge – and a digital credit-scoring model for the entire group can facilitate savings groups' access of credit from other FSPs.

Moreover, Exuus intends to, in time, link SAVE to larger FSPs, such as microfinance institutions (MFIs) and commercial banks, to expand the variety of financial services that group members might access.

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7   The variables recorded here include, for each savings group: name, number of members, high-level financials, location and founding organisation.

This case study is part of the DataHack4FI Innovation Award competition Season 2 series. It describes the solution as developed by the tech startup and its partnered data fellows during the competition. The competition brings together data enthusiasts and financial service providers to promote the use of data-driven decision-making in financial inclusion.

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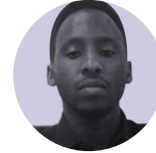CEO

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