Strengthening Agricultural Livelihoods

Behavioral science could help smallholder farmers manage loans

Many traditional financial products aren't suited to farmers, whose income fluctuates throughout the year. As such, when they take out a small loan to invest in equipment or supplies they may struggle to pay it back, resulting in fees. We worked with a loan provider in Kenya to build plan-making support into the loan process.

Summary

People who rely on agriculture for income are often among those with the fewest resources to support themselves and their families. Bolstering agriculture as a productive and sustainable livelihood has massive potential for poverty alleviation, and it is also critical for keeping the world's population fed. Many efforts to increase access to formal financial services target this problem, aiming to grow farm productivity, profit, and sustainability. But while incredible progress has been made, these innovations are not always utilized or applied correctly, or they may have unintended consequences.

Highlights

‣ Small loans can help farmers grow their agricultural business

‣ Planning challenges may prevent them from paying back loans, resulting in a fee

‣ Plan-making support and insights from behavioral science may help farmers better manage their loans

Supporting efforts to improve agriculture can represent brighter futures for smallholder farmers around the world. Nearly every product, service, or program designed to improve outcomes for farmers depends on their engagement with it, yet they are seldom designed with the nuances of human behavior in mind. Applying insights from behavioral science can optimize solutions that already exist, impacting more farmers' lives. Financial products in particular can benefit from the behavioral approach, as most of the few financial products available to them are not suited to their needs.

For example, many smallholder farmers experience cyclical financial flows and must balance cash windfalls at harvest time with major expenditures at planting time. They live in rural areas and are often unbanked, making it challenging to leverage helpful traditional resources like loans or comprehensive savings programs to manage those ebbs and flows. Using behavioral science, we can strengthen existing financial products and create new ones, enabling farmers to set and realistically achieve financial targets.

Making the most of a loan

Small loans can help farmers grow their agricultural businesses, enabling them to purchase equipment or bulk supplies. They also come with a host of utilization and planning challenges that may prevent people from paying back their loans, resulting in a fee or penality. To help farmers navigate decisions about their loans, in 2015 ideas42 partnered with Juhudi Kilimo, an organization in Kenya that provides agricultural loans for income-generating assets to more than 20,000 farmers.

Through conversations with farmers, loan officers, and other key stakeholders, as well as observations of farmer group meetings and analysis of administrative data, we observed that many farmers lacked a plan for how to utilize their loan, both while applying and upon receipt of the loan disbursement.

To address this plan-making challenge, ideas42 designed a simple mobile-based intervention to prompt farmers to better plan their loan requests and asset investments at the appropriate times. The intervention consisted of six SMS messages sent to clients during the loan application process. These messages prompted clients to consider how assets (e.g. cows or chickens) they buy would support loan repayment, how to budget for often overlooked costs, and how to create a plan for purchasing the actual asset.

Results and a path forward

In order to rigorously evaluate the effectiveness of these messages, ideas42 and Juhudi Kilimo tested the messages using a randomized controlled trial (RCT). We found that clients assigned to the treatment condition, compared to those assigned to the control condition, on average:

➤ *Were less likely to have an overdue loan payment* **(6.3% vs. 7.6%)**

➤ *Were less likely to receive a loan* **(66.2% vs. 67.5%)**

➤ *Received loans of higher value* **(48,334 KES vs. 47,991 KES)**

➤ *Received loans quicker* **(70.9 days vs. 73.0 days)**

Because these results are not statistically significant, and due to a technical glitch wherein some farmers did not receive all of the messages and some farmers in the control group may have received some messages, we cannot draw causal conclusions from the data. However, the results do indicate positive trends and tell us that the intervention could have an impact, which should be considered during future work. While being less likely to have an overdue payment suggests a clear benefit, further investigation and experimentation is required to parse the latter three metrics and how they would impact farmers' financial lives. For example, receiving a loan more quickly could indicate that the application process has become more efficient, or it could reveal hastier decisions. The preliminary results indicate that the texts could have an effect on these behaviors, and future work could clear a path to improving the messages and targeting them productively toward positive outcomes.

We hope to continue building off these efforts in agricultural finance both with Juhudi Kilimo and other organizations to address behavioral barriers and improve the livelihoods of farmers. Reducing overdue payments would mean thousands of farmers would incur fewer fees and are better able to obtain the credit they need to increase yields and strengthen their financial futures.