# Is Digital Credit Filling a Hole or Digging a Hole? Evidence from Malawi

**Researchers:**

Pascaline Dupas

Jon Robinson

**Sector(s):** Finance

**Fieldwork:** Innovations for Poverty Action (IPA)

**Location:** Malawi

**Sample:** 26,467

**AEA RCT registration number:** AEARCTR0004139

**Data:** https://zenodo.org/records/8381824

Digital credit has quickly spread in Africa, mostly through short-term, high-interest loans with unclear terms that can exploit low consumer financial literacy and open avenues for predatory lending. Researchers conducted a randomized evaluation to test the impact of a financial literacy interactive voice response campaign on loan outcomes. The intervention boosted knowledge and slightly improved loan repayment, but it also raised loan demand, increasing the overall risk of default.

## Policy issue

Digital credit, especially in the form of consumer loans distributed via mobile money, has seen a significant rise in popularity particularly in Africa among consumers with limited access to other sources of credit. Although the significant demand for digital credit highlights the need for a readily available source of liquidity for millions of consumers, many lack information about loan terms. Consequently, many borrowers end up paying late, incurring fees, or defaulting, thus adversely affecting their future borrowing capabilities. Further, the regulatory and oversight environment has not kept pace with new technologies, leaving the door ajar for predatory practices.. Improving financial literacy may enable borrowers to make informed decisions, helping them to avoid deceptive or exploitative lending practices. What are the impacts of a low-touch, low-cost financial literacy intervention on take-up and repayment of loans?

## Context of the evaluation

In 2019, in Malawi, Airtel was the largest mobile network operator with a subscriber base of approximately 4.8 million users in a country with a population of 18.5 million. Airtel offered users a digital credit product called Kutchova, which is similar to other digital credit products offered in the region. These loans, disbursed and repaid electronically, differ from conventional credit by being instant, automated, and remote, thereby eliminating the need for in-person interaction and relying on algorithms rather than loan officers for decision-making. These loans typically entail short durations for repayment, often within a month or even just a week or two, involving small amounts of money and carrying exceptionally high effective interest rates that frequently exceed 100 percent APR when annualized.  Kutchova had a repayment window of fifteen days, including an eight-day grace period. However, there was a 10 percent facilitation fee, substantial mobile money cash-out fees, and late fees of 12.5 percent after 15 days, with an additional 10 percent after another 15 days, alongside the risk of automatic withdrawal and further charges for missed payments. The disclosure of late fees to customers prior to borrowing was not clearly provided. At the time of the study, Airtel's official Terms and Conditions stated that a late fee of 2.5 percent would be charged every 15 days---but this did not correspond to the actual fee scheduled imposed on customers. Additionally, the mobile interface used for loan requests did not mention late fees anywhere. However, borrowers received a warning 22 hours before the due time, informing them of the 12.5 percent late fee. These fees are on the high end of what other digital credit providers charge.

Airtel mobile money users were generally young with 68 percent of men and 64 percent of women being under 40, while less than 6 percent were over 60. Most mobile money users were men, whereas only 41 percent of users were women. Women were also less likely to be eligible for digital credit through Airtel, with only 36 percent of credit-eligible users being women. 38 percent of new borrowers paid their loan back fully on time, while 47 paid the full amount late accruing an average of 27 percent interest compared to the 10 percent if paid in full on time.

Woman listening to a cell phone in Malawi

Shutterstock.com

## Details of the intervention

Researchers conducted a randomized evaluation to test the impact of interactive voice response (IVR) financial literacy training on digital credit demand. 26,467 newly eligible customers were randomized into four treatment groups:

1. *Finlit (financial literacy) group (6,625 customers)*: Customers received an IVR phone call that walked them through a 15-minute example scenario based on the Terms and Conditions provided by Airtel, emphasizing the facilitation fee and potential cash-out and late fees. Since the late fee mentioned in the module was based on Airtel's official terms and conditions, it was reported as 2.5 percent, rather than the actual rate of 12.5 percent. Participants received a MWK 500

(US$.64 in 2019) incentive payment for engaging with the module. Additionally, the Finlit group received text messages reiterating loan terms and conditions to reinforce learning or provide information to those who didn't participate in the module.

2. *Salience group (6,612 customers)*: Customers in this group received the same incentive payment and text messages as the Finlit group. Their IVR module, however, was shorter (3 minutes) and did not provide specific information about digital borrowing, only informing them about the existence of Kutchova.
3. *Info SMS group (6,618 customers)*: Customers received the same two text messages as the Finlit and Salience groups, but did not receive the IVR module.
4. *Comparison group (6,612 customers)*: Customers did not receive the IVR module or text messages.

The campaign occurred between July 31 and August 15, 2019, reaching 1,000 individuals per day. Researchers measured the impact of the campaign on knowledge, loan demand, loan repayment, and regret & attitudes about Kutchova.

## Results and policy lessons

The financial literacy IVR improved knowledge but did not influence repayment behavior. However, it increased loan demand, leading to an overall increase in default risk. The other interventions had no meaningful effects on any outcomes.

*Knowledge:* Participants in the Finlit group were 18 percentage points more likely to know about the initial 10 percent fee on the loan compared to 30 percent in the comparison group. Participants in the Finlit group also saw a 16 percentage point increase from a baseline 35.4 percent in awareness of the loan's 15-day repayment period, a 15 percentage point increase from a baseline of 28 percent in understanding of the existence of a late fee, and a 15 percentage point decrease from a baseline of 54 percent in reporting uncertainty about the consequences of non-repayment. These outcomes remain consistent across gender. Notably, in follow-up surveys, 67 percent of Finlit respondents reported that IVR shifted their views on Kutchova and that it was less expensive than they previously believed. Despite 62 percent of respondents indicating increased likelihood to use Kutchova after the IVR, many were unaware of the deceptive late fees, which were substantially higher than officially stated, with no significant difference in knowledge between new and returning borrowers.

*Loan demand:* Up to three months post-treatment, the Finlit group borrowed 18 percent more from Kutchova than the comparison group. After nine months post-treatment, respondents were 2 percentage points more likely to take out loans and borrowed 9 percent more in total. Initially, loan uptake was slightly higher among the salience group compared to the Finlit group, suggesting a possible influence of marketing or salience, although this effect diminishes over time.

*Loan repayment:* For existing borrowers, receiving the Finlit intervention shortly before the loan due date did not impact borrowers' likelihood of repaying on time or total late fees paid, suggesting that information alone was insufficient to alter repayment behavior for existing borrowers. There was also no impact on the likelihood of on-time repayment among new users, who received the Finlit intervention before deciding to borrow. However, because they borrowed more often, new users who received the Finlit intervention were 2 percentage points more likely to have defaulted at least once after nine months. This suggests that interventions boosting loan demand, even with protective intentions, may heighten the overall risk of default for borrowers.

*Regret and attitudes to Kutchova:* Despite Finlit respondents taking out more loans and thereby increasing overall default risk, they were no more likely to regret a loan and no less likely report liking the product.

*Regression discontinuity analysis:* The researchers also conducted a non-experimental analysis of the rollout of Kutchova to a new set of eligible customers, to determine its impacts on financial well-being. They find strong demand for small digital loans, and limited positive downstream impacts on perceived financial well-being.

This study showed that borrowers often lack awareness of loan terms, leading to late payments and exorbitant fees. While the financial literacy intervention increased on-time repayment, it also increased loan demand and overall default risk. These findings emphasize the urgent need for robust consumer protection measures in the rapidly growing digital credit market to mitigate the risks of predatory lending and ensure sustainable financial inclusion.

Brailovskaya, Valentina, Pascaline Dupas, and Jonathan Robinson. "Is digital credit filling a hole or digging a hole? evidence from Malawi." *The Economic Journal* 134, no. 658 (2024): 457-484.

---

1.