

Researchers

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Sample Size

1,618 loan applicants

Research Implemented by IPA

Yes

Providing Digital Loans to Assess their Impact on the Welfare of Users in Nigeria



In This Image

A customer at Bodija market, Ibadan, Nigeria. © 2019 Femi Komolafe on Shutterstock

Abstract

Digital technologies enable new financial products to reach historically unbanked populations, increasing financial access but also raising questions as to their broader social and economic impact. In Nigeria, researchers are working with a digital financial service provider who provided loans to applicants to assess how access to digital loans impacts the welfare of borrowers. Being approved for the loans increased subjective well-being after three months for applicants who normally would have been denied. Researchers found no impacts on other welfare measures such as income, resilience, or women's economic empowerment in the short term.

Policy Issue

While digital financial services have catalyzed financial inclusion, access to financial services remains an obstacle in low- to middle- income countries (LMICs), where only 63 percent of adults have formal financial accounts.^[1] In Sub Saharan Africa, fewer than 43 percent of those aged 15 and older have a financial account at a financial institution or mobile service provider.^[2] Credit access also remains low. Between 2008 and 2018, credit extension rose from ten percent to eighteen percent while the population grew by 33 percent to one billion people.^[3] Without available credit services, smallholder farmers, small-and-medium enterprise (SME) owners, and vulnerable populations may have difficulty obtaining important loans to make profitable investments or pay off debts.

There is extensive research about the impact of formal and informal credit access on recipients in LMICs. However, because digital credit is relatively new, robust evidence about their impact is still developing. This project adds to the growing literature by assessing how digital loans impact consumer welfare economically, socially, and psychologically.

While digital technologies enable new financial products to reach poor and historically unbanked populations, regulators are grappling with how to limit potential harms from these technologies. One option is to duplicate existing forms of regulation designed for analog products. However, digital environments may enable new ways of protecting consumers, providing new avenues to regulation. This project proposes and assesses a new tool for financial lenders to track consumers' loan repayment probabilities that can also be used in the industry to enhance digital consumer protection altogether.

Context of the Evaluation

The financial technology sector in Nigeria has grown considerably in recent years, generating over US \$600 million in funding between 2014 and 2019.^[4] As an effect of the expanded market, the number of Nigerians financially included rose by almost 50 percentage points between 2010 and 2020.^[5] When Nigeria released its 2020 National Financial Inclusion Strategy, the government set a target for 80 percent inclusion. However, in 2020, over one-third of Nigerian adults were still excluded from financial services like loans and credit, with the exclusion most felt by women, northern Nigerians, and rural populations.^[6]

Details of the Intervention

In Nigeria, researchers partnered with a Financial Services Provider (FSP) who offered digital loans via a smartphone application to assess the impact of digital loans on consumers' social and economic welfare.

The researchers launched a randomized evaluation of new applicants who installed the app between August 2019 to February 2020 to participate. The applicants were randomly divided in half into the following groups:

- **Auto-approval:** Participants were automatically approved for credit, regardless of their credit score.
- **Standard approval:** Participants were approved only if their credit score exceeded a threshold. Applicants who were approved received a randomly assigned maximum initial loan offer, selected from NGN 1000, 2000, 5000, 10,000, or 13,000 (US \$2.75 - \$35.75). Customers who repaid their initial loan on time were subsequently eligible for future loans.

Roughly three months after the impact evaluation started, the researchers surveyed 1,618 applicants and examined the impact of the increased access to digital loans on standard measures of welfare like finances, ability to cope with shocks, women's empowerment, and mental health.[\[7\]](#)

Using data from the randomized evaluation and recent innovations in machine learning, the research team is now developing welfare-sensitive credit scores that aims to predict the likelihood that a loan applicant will derive a positive welfare benefit from receiving a loan. The positive score would indicate to the lending institution that the consumer would use the loan to make economic decisions that would improve their wellbeing and be more likely to pay back the loan, whereas a negative welfare score would indicate that the consumer would likely not benefit and be less likely to pay back the loan. In the future, lenders will be able to consider these scores alongside a standard credit score to systematically prioritize borrower welfare in their lending decisions.

Results and Policy Lessons

After an average of three months of access to digital credit, the subjective well-being of applicants increased. The interventions had no significant impact on other dimensions of welfare such as income and expenditures, resilience, and women's economic empowerment.

Impacts on borrowing: Both interventions increased the amount that applicants borrowed. Being auto-approved for loans increased borrowing from the FSP by an average of US\$30. Applicants that would normally fall under the threshold of being able to take a loan also substituted away from informal sources of credit. The initial loan value group increased their borrowing by US\$1.24 for every US\$1 increase of the initial offer.

Subjective well-being: Having access to digital credit through auto-approval increased subjective well-being substantially, while the amount that a borrower could access had no significant impact.

Other welfare impacts: The expansion of access to credit had no significant effect on women's economic empowerment or financial health measures. It also did not significantly impact applicants' self-reported ability to cope with negative shocks; though the results suggest that auto-approval may have helped people manage shocks without selling assets.

Overall, the findings suggest that even small relaxations on barriers to accessing credit can substantially improve mental health, with impacts of a similar magnitude to those of costlier anti-poverty programs.

Sources

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5. British High Commission Abuja and British Deputy High Commission Lagos, "Nigeria: new data from EFInA shows financial inclusion growth," British High Commission Abuja and British Deputy High Commission Lagos, June 10, 2021, <https://www.gov.uk/government/news/nigeria-new-data-from-efina-shows-financial-inclusion-growth>
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7. 984 individuals were in the auto-approval group, while 634 were in the standard-approval group.

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