

The Impact of Encouraging Mobile Money Use on Women's Empowerment in Tanzania

Researchers:

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Sector(s): Finance**Fieldwork:** IPA Tanzania**Location:** Tanzania**Sample:** 750 female clients from 152 microfinance groups**Initiative(s):** Digital Identification and Finance Initiative in Africa (DigiFI Africa)**Target group:** Women and girls**Outcome of interest:** Household finance Credit balance/repayment**Intervention type:** Digital and mobile**AEA RCT registration number:** AEARCTR-0009006**Partner organization(s):** BRAC, Innovations for Poverty Action (IPA), Women's Economic Empowerment and Digital Finance (WEE-DiFine), University of Washington Royalty Research Fund

Supporting women's empowerment, the ability for women to control their resources and make their own choices, is a common policy goal both as its own outcome and as a vehicle to drive other change like improving children's health and education. Many empowerment programs have targeted women's income generating abilities, though fewer programs have attempted to provide ways for women to retain control over their existing resources. Researchers collaborated with the NGO BRAC to conduct a randomized evaluation to test the impact of encouraging women microfinance clients to make weekly loan repayments with mobile money instead of cash on their wider use of mobile money services and their empowerment. Encouraging women to use mobile money for loan repayment led them to increase its use for repayment and other transactions, like savings, and increased their empowerment; however, it did not increase their business profits or sales.

Policy issue

Supporting women's empowerment, the ability for women to control their resources and make their own choices, is a common policy goal both as its own outcome and as a vehicle to drive other change like improving children's health and education. Many empowerment programs have targeted women's income generating abilities, for example through cash transfers or graduation models. However, for women to remain empowered over time they must maintain control over their income.

One potential pathway to support women's financial control is to promote women's use of mobile money. Mobile money allows people to store and make decisions about their money using a basic mobile phone without requiring internet connection or a smartphone. Not only is mobile money an accessible technology, it can also provide women with a secure place to receive money in their name and more easily control their resources. However, women's use of digital payments has continuously lagged behind

men's in low- and middle-income countries.¹ Could encouraging women to repay loans using mobile money increase their use and comfort with mobile money and in turn increase their financial control and decision-making power, ultimately increasing their empowerment?

Context of the evaluation

Around half of women in Tanzania own mobile money accounts, which like in many sub-Saharan African countries is similar to men's account ownership. However, opening an account has not translated into high use of mobile money for savings or business transactions. In 2021, 36 percent of all mobile account holders in Tanzania used their accounts for savings, but women account holders were half as likely to do so as men.

Microfinance loans have traditionally been disbursed and collected as cash, but providers are increasingly looking to integrate mobile money services into the loans, allowing digital forms of repayment. Many women access loans through BRAC, the largest microfinance institution in Tanzania, by forming groups within their community of around eight to thirty women. At the time of the study, women made payments at weekly meetings in cash to a credit officer that visited the village. Basic experience with mobile money was common, with 96 percent of women in the study reporting having ever used mobile money typically for remittances and other basic transactions and expressing trust in mobile services. However, women also cited transaction costs as a barrier to use and did not take advantage of more advanced services: 27 percent had taken out a loan payment using mobile money, and 15 percent of women reported saving with mobile money. The women in the study were on average forty years old and seventy percent were married. Almost all completed primary school, while 24 percent went to secondary school. The women earned an average of US\$340 in profits per month from running small retail businesses.

Details of the intervention

In partnership with Innovations for Poverty Action and BRAC, researchers conducted a randomized evaluation to test the impact of encouraging existing women microfinance clients to make weekly loan repayments with mobile money instead of cash on their wider use of mobile money services and their empowerment. Researchers randomly assigned 152 microfinance groups within seven BRAC branches in the region of Mwanza into the following groups:

1. *Mobile money group (101 microfinance groups including 501 women):* Mid-way through their loan cycles, women in this group received information from their microfinance group credit officer on how to use mobile money to repay their loan in their weekly in-person group meetings. They were encouraged but not required to make the remainder of their weekly payments using mobile money, and were informed about a one percent fee for making loan repayments using mobile money.
2. *Comparison group (51 microfinance groups including 249 women):* Women in this group did not receive any information about using mobile money for loan repayment and continued to repay their loan in cash and attend their weekly in-person group meetings.

Researchers carried out the evaluation for ten months between 2022 and 2023. They surveyed 750 randomly selected women, five from each microfinance group, before and after the intervention to collect data on women's use of mobile money, their comfort, and trust, women's business and household outcomes and women's empowerment. As part of measuring women's empowerment, they conducted a game to measure women's willingness to pay to have control over their own resources. In the game, women were asked scenarios like making a choice between receiving US\$3 themselves or their spouse receiving a higher amount. To supplement the surveys, researchers also conducted six focus groups with thirty women total four months after the start of the intervention. BRAC also contributed administrative data indicating the participants' repayment method (cash vs.

mobile money) and loan performance.

Results and policy lessons

Encouraging women to use mobile money for loan repayment led them to increase their use of mobile money for repayment and other transactions, like savings. Encouragement also increased women's empowerment through higher financial control and decision-making power, but there were no detectable effects on their business profits or sales.

Use of mobile money services: Of the women in the mobile money group, 64 percent made at least one repayment with mobile money, while women in the comparison group mostly made zero payments (a small portion of women in the comparison group accidentally received instructions to repay their loan using mobile money). Women encouraged to use mobile money for loan repayment, on average, made one third of their loan repayments using mobile money, and were not more likely to default on their loans compared to those in the comparison group. Women who received the encouragement were 7.3 percentage points more likely to allow customers to make payments in their businesses using mobile money compared to 15 percent in the comparison group (a 50 percent increase).

Researchers posit the increase in mobile money use could be driven by greater comfort in the service. Women offered encouragement were 6 percentage points more likely to make mobile money transactions by themselves compared to 76 percent in the comparison group (an 8 percent increase). Despite an increase in mobile money use, women who received the encouragement expressed on average a lower preference for making digital loan payments compared to those who were not offered encouragement, most frequently citing the one percent fee as a barrier to making mobile transactions.

Savings using mobile money: Women offered encouragement were 6.2 percentage points more likely to save using mobile money, compared to 17 percent of women in the comparison group (a 36 percent increase) and saved US\$16 more in their mobile money wallet compared to women in the comparison group who saved on average US\$12 (a 130 percent increase). A breakdown of women's savings demonstrated that women offered encouragement made on average over US\$9 more in mobile payments for school fees, compared to US\$0.70 in the comparison group (a 1,286 percent increase). Researchers suggest this increase reflects a behavioral shift of women using their mobile money savings to invest in their children's education.

Impact on women's empowerment: Women offered encouragement to make mobile loan repayments demonstrated higher control over their financial resources and decision-making. On a scale of one to five, with five representing women's full control over her own income, they were .279 points more likely to report deciding how to spend their income on their own compared to women in the comparison group who averaged a 3.83 (a 7 percent increase). Women were also less likely to give up money for the household by choosing themselves to receive the money in the willingness to pay game, demonstrating an increase in their bargaining power in the household.

Women in the encouragement group also gained greater decision-making power compared to those not offered encouragement. For example, they were on average 7 and 7.6 percentage points more likely to make decisions around how much clothing or food to purchase without their husband compared to 85 and 81 percent in the comparison group (an 8 and 9 percent increase). Women who received encouragement did not report having more arguments with their spouses compared to women in the comparison group, demonstrating the increase in empowerment did not likely lead to a backlash. Women in the mobile money group were .245 points more likely to discuss their income with their spouse compared to women in the comparison group who averaged a 3.04 on a scale of zero to four (an 8 percent increase), demonstrating women did not feel the need to hide their income from their spouses.

Profits and sales: Women who received encouragement to repay loans using mobile money did not experience higher profits or business sales compared to those who did not receive the encouragement, despite their increased use of mobile money. However, the scope of change made possible by higher adoption may have been limited because only seven percent of their suppliers accepted mobile payments. In addition, women did not reinvest their savings into their business, potentially because a

worthwhile investment may require a large sum that women were unable to save in this study.

In this evaluation, mobile money enhanced women's empowerment by increasing their control over financial resources and decision making. However, policymakers should consider the impact of the transaction fees on women's preference toward making mobile payments. BRAC has rolled out mobile money repayment of their Microfinance loans as an option to all women at the seven branches that took part in this study and are rolling the program out to all branches nationwide in 2025.

Heath, Rachel and Emma Riley. "Digital Financial Services and Women's Empowerment: Experimental Evidence from Tanzania." Center for Effective Global Action Working paper, September 2024.

1. Klapper, Leora, Dorothe Singer, and Saniya Ansar. 2021. "Women and Financial Inclusion." *The Global Findex Database 2021*. doi: <https://www.worldbank.org/en/publication/globalfindex/Report>.