Can Digital Finance (Alone) Help Women Grow Their Businesses?

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Preliminary results
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Motivation

• Digital banking (savings and loans) has expanded rapidly in Africa; offering a convenient and secure means to store and borrow money

• As women entrepreneurs may face greater capital constraints and pressure to share resources, such technologies could be particularly helpful to them, to help them invest in the growth of their businesses, absorb unexpected shocks

• But digital savings tend to be short-term, digital loans are expensive, and standard mobile money accounts already allow users to store money securely and conveniently

• Moreover, unclear whether insufficient business training will undermine effective usage of digital banking towards business expansion
This Study

• Test impacts of digital banking among women business owners, with and without business training

• Sample comprises women microentrepreneurs (mostly market and street vendors) in urban Tanzania

• The digital banking product we study is M-Pawa:
  • Linked to M-Pesa (mobile money) platform
  • Allows users to save money through their phones, earn interest (2-5% interest rate), and eventually obtain micro loans (9% monthly fee)
  • Launched in 2014 by Vodacom (and CBA): in the first two years, $19.5m loans to 4.9m subscribers
Randomized Control Trial

Full Sample
4,000 women microentrepreneurs (mostly market and street vendors) in Dodoma and Mbeya, Tanzania

M-Pawa
1,000 women

M-Pawa + Business Training
2,000 women

Control
1,000 women
M-Pawa Group

– Women in this group invited to a short training session on how to use M-Pawa: 70% showed up

– At end of session participants received assistance with opening accounts: of those who showed up, 90% activated account
M-Pawa + Business Training Group

– Women in this group invited to the M-Pawa training session AND to a business training

– Business training entailed 12 weekly group sessions teaching business skills and financial literacy: 55% women participated
Timeline

**Preparatory Activities**
- TechnoServe staff training on participants' recruitment (14 – 22 Jan 2016)
- Enumerators training + Pilot Baseline survey instrument (1 – 6 May 2016)
- Enumerators training + Pilot Midline survey instrument (24 Apr – 04 May 2017)
- Enumerators training + Pilot Endline survey instrument (29 Jan – 3 Feb 2018)
- Enumerators training + Pilot Phone Endline survey instrument (4 – 5 Dec 2020)

**Data Collection**
- Census to identify and recruit eligible businesswomen (Feb – Apr 2016)
- Conducted Baseline Survey (May – Jul 2016)
- Conduct Midline Survey (about 12 months since baseline) (May – Aug 2017)
- Conduct Endline Survey (about 18 months since baseline) (Feb – Apr 2018)
- Conduct Phone Endline Survey (about 54 months since baseline) (Dec 2020)

**Interventions**
- Deliver Mobile Savings training (Aug 2016)
- Deliver in-depth 3 months Business training (Aug – Nov 2016)

**Availability of Administrative Data**
- 01 Apr 2016
- Source: Vodacom Tanzania LLC
- 31 Dec 2018
What did we find? Digital Savings (administrative data)

Panel A: Average amount Deposited per week

Panel B: Average amount Withdrawn per week

Note: Reference period from 01 Apr 2016 to 31 Dec 2016. Administrative data from Vodafone Tanzania LLC.
Results: **Digital Savings** (administrative data)

- Initial surge first couple of months, followed by smaller but lasting positive effects, but average weekly savings small

- First year:
  - 20% of women in control group ever deposited, on average making 1.3 deposits, depositing TZS 35k
  - MP raises account usage by 42pp, number of deposits by 5, amount deposited by TZS 69k
  - adding BT on top of MP further raises number deposits by 1.3, amount deposited by TZS 54k

- After that:
  - downward time trend in account usage across three groups
  - MP has persistent positive impacts, but additional impact of BT diminishes over time
Results: **Digital Loans** (administrative data)

- Similar but less pronounced pattern: initial surge, followed by smaller but lasting positive effects

- **Weeks 1 – 50** (between baseline and first follow-up)
  - 16% of women in control group ever borrowed, on average obtaining 0.6 loans, borrowing TZS 9k
  - MP raises likelihood of borrowing by 15pp, number of loans by 0.5, amount borrowed by TZS 7k
  - adding BT on top of MP has no significant additional impact

- **Weeks 51 – 125** (between first and second follow-ups, and beyond)
  - downward time trend in borrowing across three groups, but MP has persistent positive impacts
Results: Impacts on Overall Savings/Loans and Business Outcomes (survey data)

• No impacts of MP alone on total savings/credit and business outcomes

• Adding BT (on top of MP) leads to greater business investment
  – proportion of business practices used increases by 5.8pp (persistent over time)
  – capital investment increases by about 40% (concentrated during the second follow-up)
  – total hours worked in the last week increases by 3.3 hours (persistent over time)
  – likelihood of introducing new businesses or services increases by 3.6pp
  – likelihood of running multiple businesses increases by 4.6pp (persistent over time)
  – in the longer term, these investments translate into substantially higher sales and profits
Policy Implications

• Findings highlight that there is a latent demand for digital banking among women entrepreneurs

• But digital banking is no panacea: per se, it does not increase total savings, loans, business outcomes

• It is important to also alleviate other constraints such as limited managerial capital: could we have had same results for business training without digital banking?