

Microsavings for Microentrepreneurs: Lessons from Field Experiments in SL

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Overview of Presentation

- Introduction
- Enabling Microsavings through POS Deposit Collection Service
- Enabling Microsavings through Mobile Phone Linked Bank Accounts
- Some Lessons learnt

Intro: Why Randomized Field Exp?

- Ability to examine the effect of an intervention/treatment by comparing pre-treatment (baseline) and post-treatment (follow-up).
- Treatment group vs control group comparison. Can even have several groups receiving different kinds/levels of treatment.
- Carefully designed experiment is able to isolate the impacts and even look at interactions.

Intro: Why Microsavings?

- The micro-credit sector has taken off worldwide.
- There is an interest in moving towards other components of microfinance: mobilizing small size savings into the formal banking sector (micro-savings).
- New technological innovations – ATM cards, POS terminals, mobile banking etc – can help reduce transactions cost.
- Banking sector interested in mobilizing the savings of “unbanked”. Low-cost source of funds. Can be used for financial intermediation purposes.
- Beneficial to savers – positive rate of rtn on savings, threat of theft/inflation, less risky
- Social benefit – “financial inclusion” perspective

Enabling Microsavings through Point of Service (POS) Deposit Collection Service



The intervention

- Deposit collectors from National Savings Bank (NSB) going to the house/enterprise of respondent – low transaction cost to depositor
- Armed with a mobile POS device – links the bank agent to the bank's computer system
- Depositor receives a receipt with full account info and amount of deposit – so highly credible.
- Withdrawals only at the bank – costs are asymmetric.
- Subsequent intervention: neighbourhood savings lockbox, key with bank agent, deposits can be done anytime, POS receipts are left behind at the box after collection.

Behavioural Features

- Frequency: weekly vs fortnightly
- Salience: the extent to which an individual is actively prompted to save (door to door deposit collector vs neighbourhood savings lockbox)
- Habit: Frequent face to face collection may inculcate savings habit
- The experiment was modified midway to study these behavioural features

The Sample

- Listing: Households within 5-10 km of NSB branches in Bandarawela and Mahiyangana along 5 arteries.
- Eligibility: primary income earner in SE, “unbanked” (not using bank ac regularly), accessible by motorcycle.
- 795 HHs divided into 176 “zones”/clusters.
- Treatment assigned at zone level – 78 zones (N=389) to weekly home, 78 zones (N=406) to control.
- 498 HHs assigned to monthly surveys and 297 HHs assigned to qrtrly surveys – effect of survey frequency

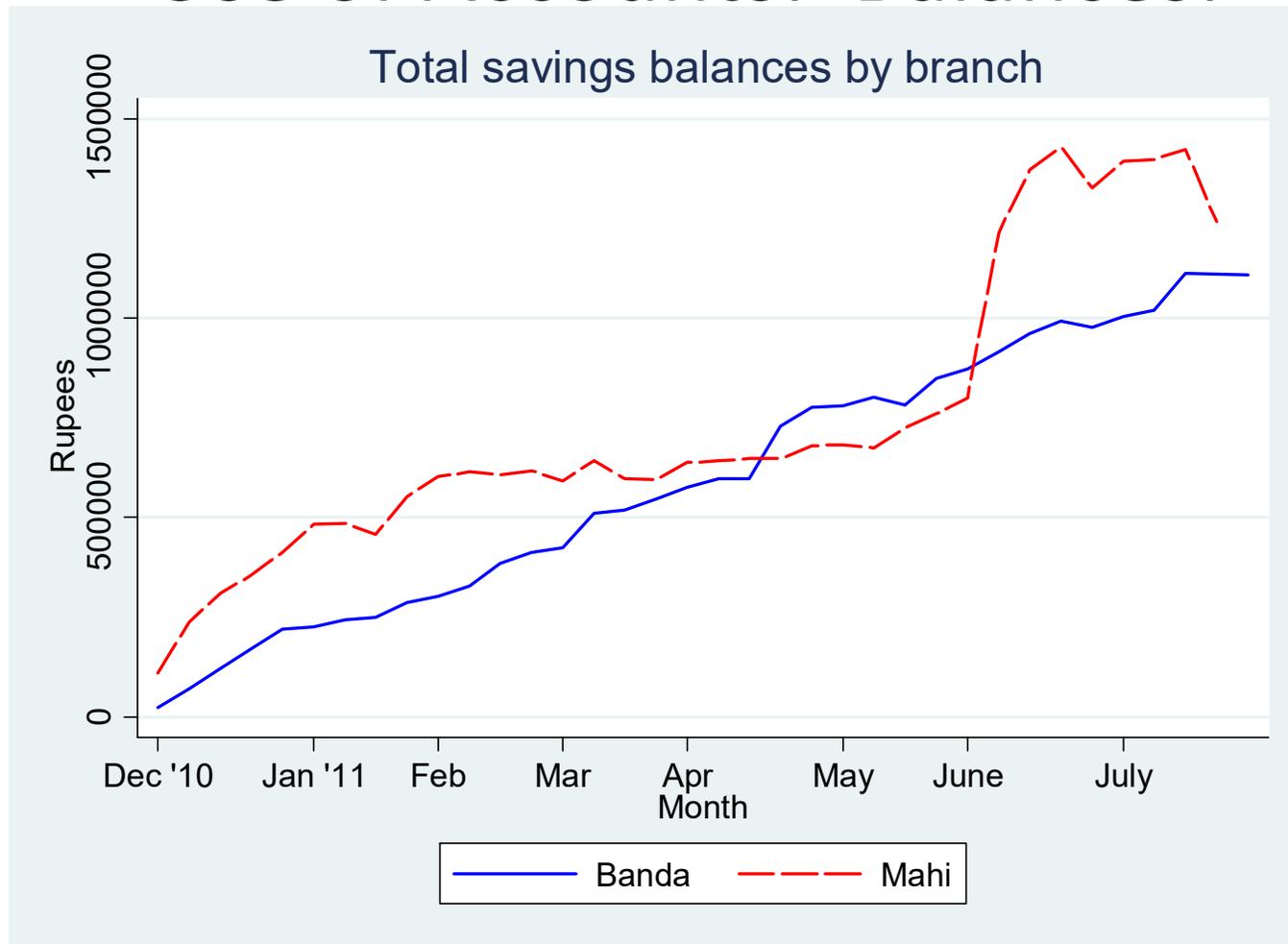
The Tweaks

- Weekly home visits (78 zones) were shifted to:
 - A. Fortnightly home visits (19 zones) OR
 - B. Weekly box (19 zones) OR
 - C. Maintained as weekly home (40 zones)
- Controls (78 zones) were shifted to:
 - D. Weekly box (13 zones) OR
 - E. Fortnightly box (13 zones) OR
 - F. Maintained as Control (52 zones)
- Frequency: A vs C, D vs E
- Salience: B vs C
- Habit: B vs D

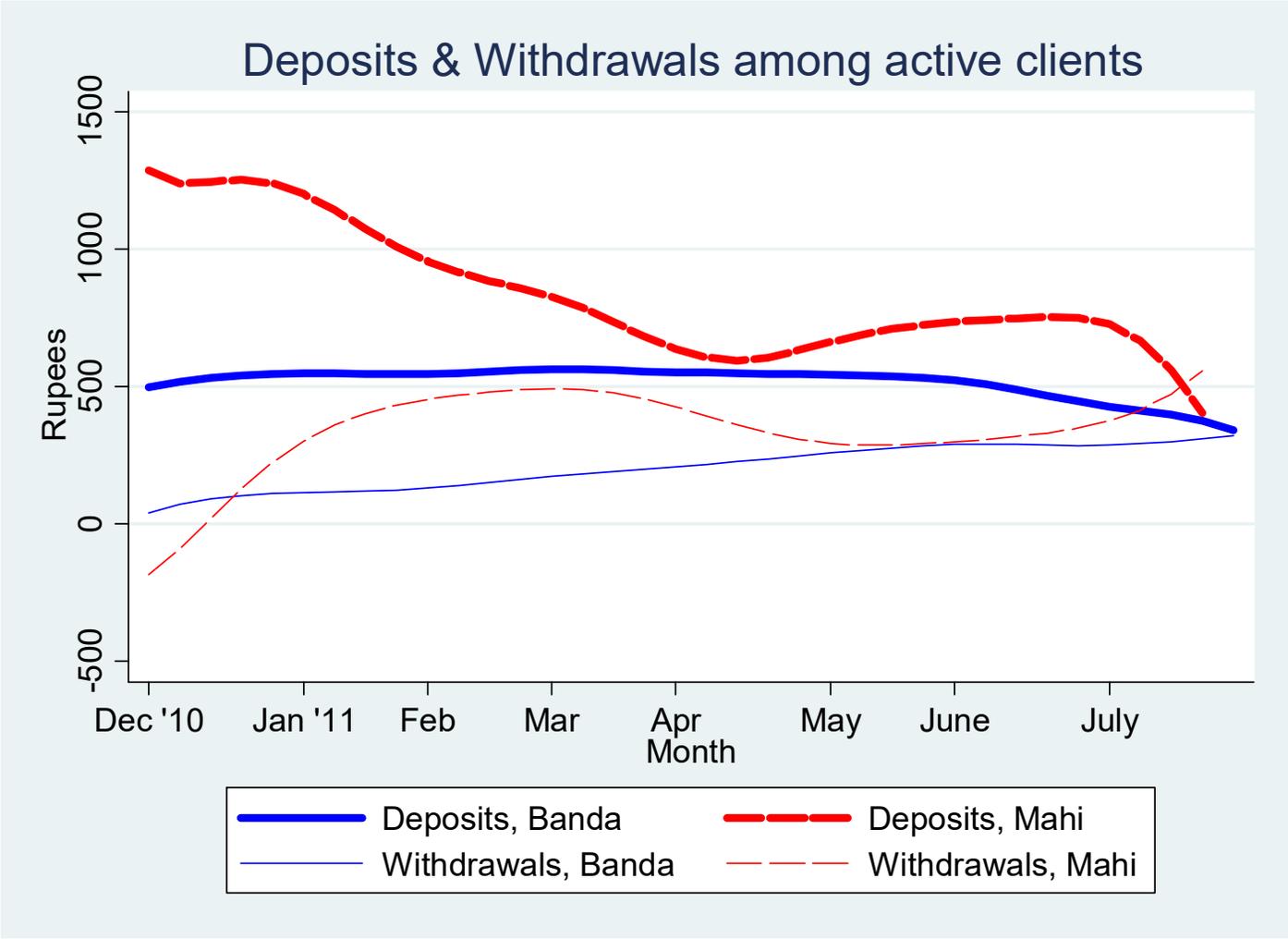
Timeline

- Listing exercise: Aug 2010
- Baseline surveys: Aug – Dec 2010 (Months 1-5)
 - To reduce noise in pre-treatment estimates
- Simple experiment – Treatment vs Control : Jan— June 2011 (Months 6-11).
- Behavioural experiment: July 2011-Jan 2012 (Months 12-18).

Use of Accounts: Balances:



Use of Accounts: Deposits & Withdrawals:



Results

- Effect of weekly home collection is positive on deposits at NSB, deposits in any formal bank and total savings.
- But no effect on nonbank savings – so not a shift from informal to formal
- Relative to weekly home, the shift to fortnightly home and weekly box treatments decreases NSB deposits by small but insignificant amount.
- Relative to control, the shift to weekly box and fortnightly box results in higher NSB deposits

More Results

- Frequency Effect: weekly home vs fortnightly home
 - Significant impact on NSB deposits, but also on NSB withdrawals. So total bank savings and total savings are unaffected.
- Salience: weekly home vs weekly box
 - Very small effect on outcomes
- Habit: T to weekly box vs C to weekly box
 - Significantly higher NSB deposits and bank savings.
- Frequency and Habit effect fades over time. Salience effect grows somewhat over time.

Headwaters of Savings

- Potential explanations:
 - Bank savings is coming from cash savings
 - Formal savings coming from decreased expenditures
 - Formal savings is being substituted for informal savings
 - Individuals work more in order to save more
- We find evidence for the intertemporal substitution of labour channel rather than the investment channel.
 - Substantial increases in savings and income, without any foregone consumption
 - Earnings increase as soon as participants obtain access to deposit collections service, but also exit from SE!



Enabling
Microsavings
through Mobile
Phone linked
Bank Accounts

Microsavings Research Project

- Research collaboration between Etisalat (mobile service provider), BOC (banking partner), UGen (software development partner) and project team.
- Randomized Control Trial – experiment offers mobile phone enabled savings product to randomly selected households.
- Target sample of approx 2300 self-employed and daily paid / casual workers
- Baseline surveys followed by intervention followed by follow-up surveys.
- Product was a pilot trial – not generally available to the public during the research project.

Overview of Project

- In October 2010, we conducted a listing exercise of around 10,300 HHS in and around Kandy City, Pilimathalawa, Katugastota, Matale, Kegalle and Kurunegala.
- A sample of around 2300 self employed or wage workers (rcvg income daily or weekly) was chosen. Baseline survey conducted in Nov/Dec 2010.
- In order to study the interaction between informal and formal savings, a part of the sample focuses on those participating in seetus.
- About 1150 surveyed monthly (beginning in Jan 2011), the balance only after one year.

Product Features

- Mobile phone no linked to normal Bank account via Topcash registration at bank
- Normal mobile scratchcard can be used to deposit money into mpurse (which is mobile money).
Phone co charging 8% fee – this was randomized into 0%, 2%, 4% and 8% groups (with the project subsidizing the balance fee)
- Customer can do mpurse to bank and bank to mpurse transaction through IVR system. Also can verify mpurse/bank balances.
- It was envisaged that the product will have other features – utility payments, P2P transfer etc. But initially not operational.

Overview of Project

- A randomly chosen sample (of 1800+ distributed over 6 BOC branches) was assigned to receive the mobile banking product. The balance 500 served as the comparison /control grp.
- Initially this was planned to take place soon after the baseline survey. However due to various delays in the project approval and product design/testing, this was finally rolled out in Dec 2011.
- In KN product offers were made in Dec 2011/Jan 2012. Topcash accounts were activated in Jan/Feb 2012. And demos were done in Feb-May 2012.
- Other 5 areas: offers were done in Jan/Feb 2012.
- System down in March 2012. Topcash accounts creation resumed in July 2012.

Use of mobile phone (baseline)

How Often	Calling/Rcvng Calls		Sending/Rcvg SMS	
	Freq.	Percent	Freq.	Percent
daily	1,464	62.4	166	7.08
weekly	148	6.31	88	3.75
rarely	188	8.01	412	17.56
never	546	23.27	1,680	71.61
Total	2,346	100	2,346	100

Use of mobile services (baseline)

Service	Freq.	Percent
Phone Camera	379	16.2
Internet	64	2.7
Phone Games	281	12
Phone Video	240	10.2
Phone Radio	294	12.5
Phone TV	70	3
Phone MP3/MP4	361	15.4
Calculator	558	23.8
Alarm/Reminder	584	24.9
MMS	49	2.1
Bluetooth	175	7.5
Torch	594	25.3
Dictionary	42	1.8
Clock	1437	61.3
Calendar	799	34.1

Product Demos

- Product demo involved:
 - Choosing language for topcash service
 - Retrieving initial pin no rcvd via sms
 - Setting up new pin no
 - Deposit of Rs 50 scratchcard into mpurse by project staff
 - Deposit of Rs 50 scratchcard into mpurse by user (in the presence of project staff)
 - Transfer from mpurse to bank account
 - Verifying mpurse and bank account balances

Degree of confidence re product use (post training)

Degree of confidence	freq	Percent	Cum.
highly confident	75	51.72	51.72
somewhat confident	27	18.62	70.34
not too confident	18	12.41	82.76
not at all confident	25	17.24	100
Total	145	100	

Clarity of Training Rcvd

"The training given by project staff regarding the use of the mobile phone banking product was clear"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	3	2.07	2.07
disagree somewhat	1	0.69	2.76
neither agree nor disagree	6	4.14	6.9
agree somewhat	26	17.93	24.83
agree strongly	109	75.17	100
Total	145	100	

Difficulty in Use of Product

"Use of mobile phone banking product is difficult / complicated"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	68	46.9	46.9
disagree somewhat	15	10.34	57.24
neither agree nor disagree	4	2.76	60
agree somewhat	35	24.14	84.14
agree strongly	23	15.86	100
Total	145	100	

Mistrust in System

"I do not trust this system of depositing money into a bank account via mobile phone"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	120	82.76	82.76
disagree somewhat	10	6.9	89.66
neither agree nor disagree	3	2.07	91.72
agree somewhat	9	6.21	97.93
agree strongly	3	2.07	100
Total	145	100	

Reluctance to use system due to technical problems

"I had to face technical problems when trying to use this product. I am therefore reluctant to use this service"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	34	23.45	23.45
disagree somewhat	14	9.66	33.1
neither agree nor disagree	36	24.83	57.93
agree somewhat	38	26.21	84.14
agree strongly	23	15.86	100
Total	145	100	

Preference for depositing directly at Bank

"I prefer to deposit money directly at the bank rather than using this mobile phone banking product"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	68	46.9	46.9
disagree somewhat	21	14.48	61.38
neither agree nor disagree	13	8.97	70.34
agree somewhat	18	12.41	82.76
agree strongly	25	17.24	100
Total	145	100	

Help needed when using product

"I get someone else's help to use this mobile phone banking product"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	60	41.38	41.38
disagree somewhat	1	0.69	42.07
neither agree nor disagree	12	8.28	50.34
agree somewhat	30	20.69	71.03
agree strongly	42	28.97	100
Total	145	100	



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Recommendation to family / friends

"I will recommend this service to friends and family if this is made available to others"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	1	0.69	0.69
disagree somewhat	3	2.07	2.76
neither agree nor disagree	8	5.52	8.28
agree somewhat	27	18.62	26.9
agree strongly	106	73.1	100
Total	145	100	

Future Frequency of Usage of Product

"Since this product is useful, I plan to use it more often in the future"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	1	0.69	0.69
disagree somewhat	7	4.83	5.52
neither agree nor disagree	17	11.72	17.24
agree somewhat	34	23.45	40.69
agree strongly	86	59.31	100
Total	145	100	

Increase in Savings

"I am saving more because of this service"

Agree / Disagree	Freq.	Percent	Cum.
disagree strongly	22	15.17	15.17
disagree somewhat	23	15.86	31.03
neither agree nor disagree	36	24.83	55.86
agree somewhat	27	18.62	74.48
agree strongly	37	25.52	100
Total	145	100	



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Reasons for low use of product

- From those who have used the product 5 or less times since training (118 cases), we asked reasons for low usage
 - Ran into technical problems when depositing money (64 cases=54.2%)
 - No money to save (32 cases=27.1%)
 - Found the system too difficult to use (25 cases=21.2%)
 - Have other methods of saving (10 cases), Had doubts about legality of product (1 case), Don't trust this system of depositing money into bank account via phone (1 case)

Most liked feature(s) of product

- What feature(s) does the the user most like about the product?
 - Possibility of saving at anytime of day (111 cases=76.6%)
 - Possibility of saving even a small amount (119 cases=82.1%)
 - Possibility of verifying mpurse/bank balances over the phone (31 cases=21.4%)
 - Security of deposits (14 cases), interest pd on bank deposits (2 cases).

Most disliked feature(s) of product

- What feature(s) does the the user most dislike about the product?
 - Difficulty in the use of the product (30 cases=20.7%)
 - Technical problems encountered (54 cases=37.2%)
 - Lack of security of deposits (3 cases), fee charged for use of product (1 case?)

Results

- Low levels of usage of product – only 26% made at least one deposit through the mobile service, and only 7% were frequent users
- But there is some heterogeneity in these results
 - Greater use by women
 - those living intermediate distances from the bank

Some Lessons

- Home deposit collection may not be cost effective for bank. But community lockboxes or agents may work out.
 - Especially for banks pursuing a financial inclusion objective.
- Mobile phone linked bank accounts did not generate sufficient usage.
 - Yet there could be pockets of users where similar product could be targeted to.

Some Broader Lessons

- The importance of FEs as an impact evaluation methodology. As we examine what else is needed in addition to microloans – room for evaluating impacts using FEs.
- The need to look beyond the MFI client space. Otherwise limited by selection issues. Need to look at the fuller distribution of enterprises – including those not serviced by MFIs.
- Opportunities for product/services innovation in the MFI sector – micro-savings, micro-insurance, micro-pensions, micro-remittances etc. Opportunities for testing demand for new products/services using FEs.

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