

Electronic Wage Payments: Promise and Pitfalls Evidence from Bangladesh

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Motivation

Development goal - improve access to basic financial services

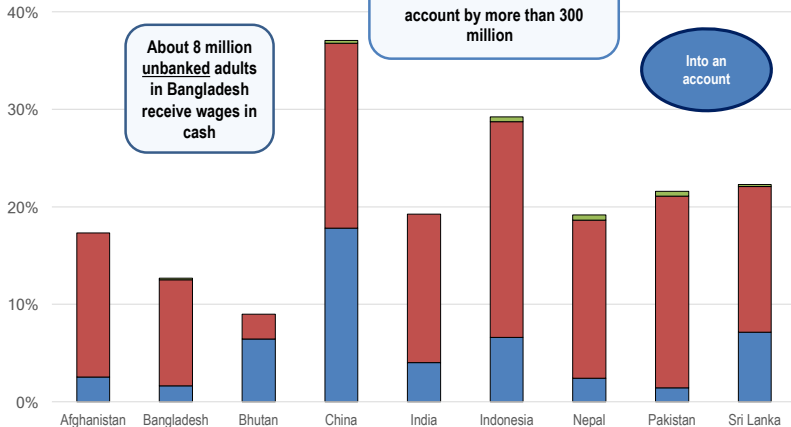
- ▶ Globally: only 50% of adults have a bank account (Global Findex)
- ▶ Bangladesh: 37% of men, 26% of women have a bank account.
Large population of unbanked workers, despite stable income:
 - ▶ must rely on cash for everyday transactions
 - ▶ cannot easily accumulate savings in a formal account
 - ▶ borrow at high interest rates in informal sector
 - ▶ cannot use formal credit to deal with income shocks
- ▶ Electronic wage payments can be a stepping stone into formal financial sector; incentive for actively using formal accounts

Motivation

GLOBAL FINDEX Usage of Accounts

Wage Payments Received

Total Percentage of Adults



Electronic wage payments

The challenge:

- ▶ Access: How to get the unbanked access to the formal financial sector?
- ▶ Active use: How to incentivize the active use of financial services to improve financial literacy and capabilities?
 - ▶ Evidence shows that opening accounts alone is not necessarily enough to achieve financial inclusion

Electronic wage payments

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Electronic Wage Payments = “Low-Hanging Fruit”?

- ▶ Financial inclusion benefits for workers
- ▶ Potential cost savings benefits to employers
 - ▶ Costs of cash: security, lost productivity
- ▶ Regulatory environment
 - ▶ Potential for improved transparency
 - ▶ However, requires adequate identification documentation of workers

Setting and Experimental Design

Experimental Design

Field experiment in Dhaka:

- ▶ 2 large garment factories
- ▶ 3,136 workers; all non-admin workers with ≥ 6 months of tenure

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Treatments: payroll accounts and electronic wage payments

1. Control (status quo cash payments)
2. Bank account + EWP
3. Mobile money account + EWP
4. Bank account + cash payments
5. Mobile money account + cash payments

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Treatments hold constant cost and ease of access

- ▶ Workers bear no cost (all fees reimbursed), so best-case test of products available in the market
- ▶ ATMs and cash out points on factory premises

Bank Treatments



Bank Treatments

Bank accounts opened with large domestic bank

- ▶ Standard savings accounts with debit cards
- ▶ Project team provided account opening assistance and ongoing support (captured cards, lost pins etc.)
- ▶ No fee charged to the worker
- ▶ ATMs built in each factory
 - ▶ accessible even during non business hours of factory
 - ▶ withdrawals only – no deposits
- ▶ Must travel to branch to make non-EWP deposits
 - ▶ important for Bank only
 - ▶ nearest branches 2km, 6km from each factory

Mobile Treatments



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Mobile Treatments

Mobile money accounts opened with large mobile money operator

- ▶ Standard mobile money accounts tied to phone number
- ▶ Workers given new, formally-registered SIM cards
- ▶ Project team provided account opening assistance and ongoing support (lost SIM cards, forgotten passwords etc.)
- ▶ All cash-out fees reimbursed to workers
- ▶ Cash out services available at dozens of small shops in close proximity to each factory
- ▶ Agent from head office of mobile money operator came to the factories to provide an additional cash-out point, if desired
 - ▶ Helped ensure everybody was comfortable using the new technology

Timeline

Project began in mid-2014, wrapped up at the end of 2016

	Factory 1	Factory 2
Baseline	June 2014	June 2015
Follow-Up Surveys	Nov 2014 – May 2016	Aug 2015 – June 2016
Treatment Roll-Out	Jan 2015 – Dec 2015	Sep 2015 – Mar 2016
Endline Survey	August 2015	October 2016

Data and Measurement

We have several data sources to track outcomes:

- ▶ Follow-up survey rounds
 - ▶ Conducted every 2-3 months
 - ▶ Basic information on savings, loans, consumption, and remittances
- ▶ Endline survey [*today's results*]
 - ▶ Financial product usage: savings, composition of savings, loans
 - ▶ Assets, goal attainment, shock mitigation
 - ▶ Trust in banks
 - ▶ Job satisfaction
- ▶ Factory administrative data
 - ▶ Salary, overtime, promotions, attendance, performance bonuses
 - ▶ Performance evaluation (for a subsample)

Phone surveys used to try to track individuals who left the factories

What Do Our Treatments Do?

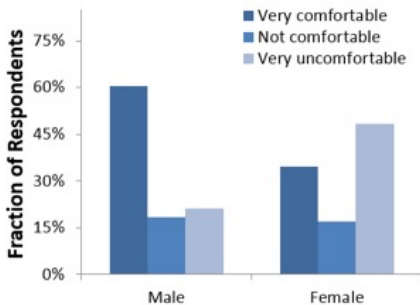
- ▶ Bank accounts lower the costs to savings
 - ▶ Improve security
 - ▶ Improve control
 - ▶ Teach how to interact with formal financial services
 - ▶ May (slightly) raise costs to spending (commitment aspect?)
- ▶ Mobile money accounts lower costs of remittances and savings
 - ▶ Lower the costs of remittances
 - ▶ Lower the costs of saving (in mobile wallet) – though expect effect to be smaller
- ▶ EWP + accounts should amplify cost reductions – don't have to actively do anything to save

We are interested in the follow-on impacts of these cost reductions:

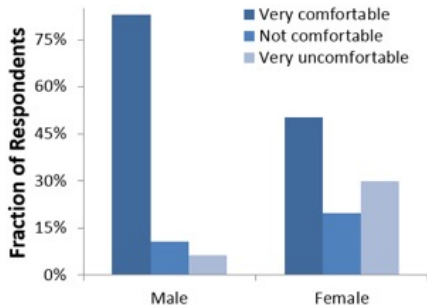
- ▶ Savings, assets and goal attainment
- ▶ Ability to smooth shocks
- ▶ Beliefs about and trust in formal financial system

Heterogeneity: Comfortable Using Financial Services?

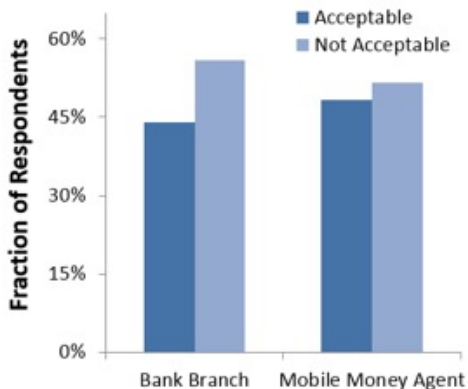
(a) Bank Branches



(b) Mobile Money Agents



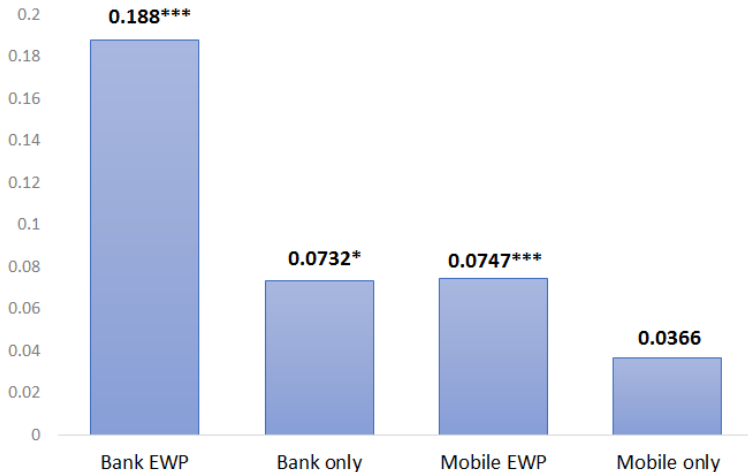
Socially Acceptable for Women to Use Financial Services?



Results: Impacts of Electronic Wage Payments

Savings: Follow-Up Surveys

Worker has any savings



Savings: Endline

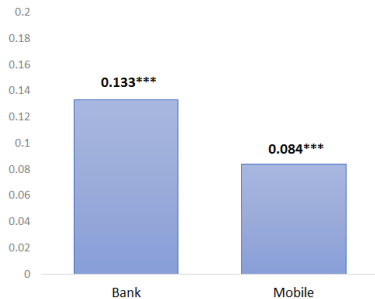
VARIABLES	(1) Uses formal acct	(2) Has savings	(3) Tot savings	(4) Log tot sav	(5) Formal sav	(6) Informal sav	(7) Sav home	(8) Sav family, friends
Treat: Bank EWP	0.547*** (0.0240)	0.0965*** (0.0200)	2,380 (2,859)	1.166*** (0.213)	4,199* (2,299)	-1,681 (1,699)	-1,293** (614.0)	-818.0 (730.5)
Treat: Mobile EWP	0.352*** (0.0260)	-0.0237 (0.0228)	498.4 (2,754)	-0.137 (0.236)	2,265 (2,258)	-1,911 (1,782)	-745.1 (688.8)	37.10 (795.2)
Treat: Bank Only	0.0710* (0.0425)	0.0383 (0.0370)	5,530 (4,657)	0.618 (0.387)	7,861** (3,925)	-1,432 (2,921)	192.5 (1,003)	-1,862** (925.4)
Treat: Mobile Only	0.0323 (0.0304)	-0.0214 (0.0279)	2,107 (3,553)	-0.137 (0.287)	3,544 (2,893)	-1,209 (2,145)	-14.29 (879.1)	-544.8 (865.6)
Observations	2,279	2,279	2,279	2,279	2,279	2,279	2,279	2,279
R-squared	0.278	0.079	0.203	0.118	0.252	0.086	0.034	0.031
Basic BL Controls	✓	✓	✓	✓	✓	✓	✓	✓
Control Mean EL	0.268	0.816	33927	7.519	18258	15670	3521	2416

Robust standard errors in parentheses

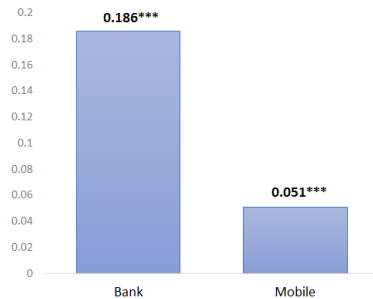
*** p<0.01, ** p<0.05, * p<0.1

Savings: Follow-Up Surveys

Has Savings (Males)



Has Savings (Females)



Savings: Heterogeneity by Gender

VARIABLES	(1) Uses formal acct	(2) Has savings	(3) Tot savings	(4) Log tot sav	(5) Formal sav	(6) Informal sav	(7) Sav home	(8) Sav family, friends
Treat: Bank EWP	0.531*** (0.0325)	0.124*** (0.0304)	2,805 (3,320)	1.337*** (0.308)	5,131* (2,659)	-2,213 (2,200)	-1,583* (941.3)	-821.7 (861.3)
Treat: Mobile EWP	0.277*** (0.0349)	-0.0227 (0.0336)	776.1 (3,333)	-0.221 (0.338)	3,758 (2,692)	-2,955 (2,225)	-1,270 (1,023)	330.0 (1,095)
Treat: Bank Only	0.0555 (0.0565)	0.0770 (0.0545)	14,341** (6,429)	1.120** (0.549)	15,666*** (5,897)	-1,336 (3,353)	504.4 (1,573)	-837.1 (1,417)
Treat: Mobile Only	0.0333 (0.0406)	0.00281 (0.0405)	3,763 (4,119)	0.147 (0.411)	4,742 (3,339)	-1,113 (2,699)	-59.48 (1,387)	-236.4 (1,010)
Treat: Bank EWP* Male	0.0364 (0.0480)	-0.0627 (0.0386)	-984.0 (6,005)	-0.398 (0.420)	-2,221 (4,783)	1,108 (3,492)	694.6 (1,171)	-15.98 (1,579)
Treat: Mobile EWP* Male	0.179*** (0.0516)	-0.000354 (0.0444)	-609.4 (5,694)	0.216 (0.463)	-3,559 (4,644)	2,509 (3,661)	1,237 (1,307)	-856.4 (1,686)
Treat: Bank Only* Male	0.0409 (0.0853)	-0.0860 (0.0730)	-19,766** (9,272)	-1.117 (0.767)	-17,668** (7,673)	-662.5 (5,960)	-616.2 (1,950)	-2,366 (1,888)
Treat: Mobile Only* Male	-0.00592 (0.0612)	-0.0556 (0.0548)	-3,816 (7,477)	-0.661 (0.566)	-2,555 (6,101)	-427.2 (4,424)	117.6 (1,591)	-762.8 (1,856)
Observations	2,279	2,279	2,279	2,279	2,279	2,279	2,279	2,279
R-squared	0.284	0.081	0.204	0.120	0.254	0.088	0.038	0.033
Basic BL Controls	✓	✓	✓	✓	✓	✓	✓	✓
Control Mean EL	0.268	0.816	33927	7.519	18258	15670	3521	2416

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

- ▶ Bank EWP stronger savings impacts for women (suggestive)
- ▶ Bank has large effect on women's savings, no impact for men
- ▶ Men engage more with mobile EWP

Savings: Interpretation

- ▶ Treatments “worked”: Significant impact on active use in both EWP treatments and Bank only
 - ▶ Significant impact on active use in both EWP, Bank only treatments
 - ▶ No impact of Mobile only
 - ▶ Surprisingly, people do use Bank only accounts (requires travel)
- ▶ Savings response only observed in Bank treatments
 - ▶ Extensive margin effect EWP only
 - ▶ Composition effect in both: shift from informal to formal
- ▶ Different usage patterns in Bank treatments (admin data)
 - ▶ Bank only: infrequent (often one-time) trips to bank with large deposits
 - ▶ Bank EWP: smooth accumulation from not withdrawing full paycheck
- ▶ No robust savings impact of mobile money
 - ▶ Consistent with overall usage patterns across Bangladesh

Unmet Needs

Dependent variables: Instances of unmet needs or shocks in past year

VARIABLES	(1) Cut meals	(2) Medical exp	(3) School exp	(4) Legal exp	(5) Num shock types	(6) Can find Tk5000 (-)
Treat: Bank EWP	-0.0122 (0.0139)	-0.0196 (0.0143)	-0.00323 (0.0136)	-0.00237 (0.00502)	-0.0430 (0.0293)	-0.0573 (0.0525)
Treat: Mobile EWP	-0.0314** (0.0129)	-0.0302** (0.0136)	-0.0105 (0.0132)	-0.00327 (0.00490)	-0.0666** (0.0289)	0.0257 (0.0531)
Treat: Bank Only	-0.0159 (0.0242)	-0.0123 (0.0250)	-0.0252 (0.0178)	0.000792 (0.00960)	-0.0463 (0.0446)	-0.124 (0.0866)
Treat: Mobile Only	-0.0182 (0.0163)	-0.00682 (0.0184)	-0.0256* (0.0142)	-0.000707 (0.00686)	-0.0494 (0.0350)	0.0232 (0.0659)
Observations	2,278	1,935	1,935	1,935	1,935	2,267
R-squared	0.039	0.043	0.027	0.039	0.042	0.102
Basic BL Controls	✓	✓	✓	✓	✓	✓
Control Mean EL	0.0650	0.0643	0.0488	0.00665	0.175	1.712

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Point estimates on num shocks negative for all treatments. Significant for Mobile EWP

- ▶ Even if no large savings response, Mobile EWP is helping to smooth consumption

Unmet Needs: Heterogeneity by Gender

Dependent variables: Instances of unmet needs or shocks in past year

VARIABLES	(1) Cut meals	(2) Medical exp	(3) School exp	(4) Legal exp	(5) Num shock types	(6) Can find Tk5000 (-)
Treat: Bank EWP	-0.00796 (0.0188)	-0.0324 (0.0203)	-0.0167 (0.0180)	-0.00597 (0.00802)	-0.0719* (0.0418)	-0.103 (0.0748)
Treat: Mobile EWP	-0.0326* (0.0172)	-0.0428** (0.0188)	-0.0196 (0.0172)	-0.00530 (0.00832)	-0.0989** (0.0402)	0.0266 (0.0758)
Treat: Bank Only	0.00182 (0.0365)	-0.0147 (0.0365)	-0.0192 (0.0261)	0.000682 (0.0176)	-0.0297 (0.0680)	-0.251** (0.125)
Treat: Mobile Only	-0.00936 (0.0224)	0.00449 (0.0274)	-0.0215 (0.0197)	-0.00780 (0.0101)	-0.0346 (0.0526)	0.0546 (0.0959)
Treat: Bank EWP* Male	-0.00936 (0.0280)	0.0282 (0.0282)	0.0316 (0.0279)	0.00845 (0.00862)	0.0674 (0.0574)	0.109 (0.104)
Treat: Mobile EWP* Male	0.00418 (0.0261)	0.0279 (0.0269)	0.0206 (0.0269)	0.00488 (0.00832)	0.0736 (0.0569)	-0.00385 (0.104)
Treat: Bank Only* Male	-0.0380 (0.0476)	0.00534 (0.0488)	-0.0124 (0.0350)	0.000589 (0.0183)	-0.0342 (0.0863)	0.295* (0.170)
Treat: Mobile Only* Male	-0.0196 (0.0325)	-0.0284 (0.0352)	-0.0103 (0.0281)	0.0167 (0.0138)	-0.0364 (0.0674)	-0.0757 (0.129)
Observations	2,278	1,935	1,935	1,935	1,935	2,267
R-squared	0.041	0.047	0.030	0.041	0.045	0.106
Basic BL Controls	✓	✓	✓	✓	✓	✓
Control Mean EL	0.0650	0.0643	0.0488	0.00665	0.175	1.712

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Large Purchases

VARIABLES	(1) Any large purchase	(2) Bought land	(3) Bought business asset	(4) Bought gold	(5) Bought house
Treat: Bank EWP	-0.0294 (0.0212)	-0.00541 (0.00980)	-0.0129 (0.0109)	-0.0246 (0.0156)	0.0125 (0.00778)
Treat: Mobile EWP	0.0135 (0.0222)	0.0160 (0.0111)	-0.0111 (0.0109)	0.00709 (0.0170)	0.00578 (0.00693)
Treat: Bank Only	0.0532 (0.0410)	0.0144 (0.0200)	-0.0115 (0.0179)	0.0630*	-0.00471 (0.0101)
Treat: Mobile Only	0.0136 (0.0272)	-0.00203 (0.0122)	0.0106 (0.0153)	0.00173 (0.0203)	0.00222 (0.00785)
Observations	2,279	2,279	2,279	2,279	2,279
R-squared	0.038	0.025	0.019	0.032	0.052
Basic BL Controls	✓	✓	✓	✓	✓
Control Mean EL	0.168	0.0306	0.0402	0.0880	0.0115

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

No detectable impacts on large asset purchases

Large Purchases: Heterogeneity by Gender

VARIABLES	(1) Any large purchase	(2) Bought land	(3) Bought business asset	(4) Bought gold	(5) Bought house
Treat: Bank EWP	-0.0637** (0.0285)	-0.0266** (0.0125)	-0.00774 (0.0141)	-0.0506** (0.0222)	0.00982 (0.0104)
Treat: Mobile EWP	-0.0221 (0.0297)	0.00841 (0.0153)	-0.0126 (0.0131)	-0.00937 (0.0243)	-0.00187 (0.00907)
Treat: Bank Only	0.0591 (0.0582)	0.0159 (0.0300)	-0.00901 (0.0229)	0.0749 (0.0505)	-0.00936 (0.00752)
Treat: Mobile Only	-0.00605 (0.0372)	-0.0115 (0.0166)	0.00164 (0.0183)	-0.00253 (0.0297)	-0.00403 (0.0104)
Treat: Bank EWP* Male	0.0785* (0.0427)	0.0490** (0.0202)	-0.0122 (0.0221)	0.0602* (0.0309)	0.00585 (0.0153)
Treat: Mobile EWP* Male	0.0824* (0.0445)	0.0167 (0.0222)	0.00446 (0.0225)	0.0363 (0.0332)	0.0176 (0.0142)
Treat: Bank Only* Male	-0.0110 (0.0811)	-0.00288 (0.0387)	-0.00403 (0.0363)	-0.0280 (0.0661)	0.0103 (0.0211)
Treat: Mobile Only* Male	0.0440 (0.0542)	0.0211 (0.0245)	0.0221 (0.0317)	0.00695 (0.0395)	0.0141 (0.0158)
Observations	2,279	2,279	2,279	2,279	2,279
R-squared	0.040	0.027	0.021	0.035	0.052
Basic BL Controls	✓	✓	✓	✓	✓
Control Mean EL	0.168	0.0306	0.0402	0.0880	0.0115

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Bank EWP women less likely to buy land, gold (savings composition)

Remittances

VARIABLES	(1) Any sent	(2) Num recipients: Dhaka	(3) Num recipients: village	(4) Log remittances
Treat: Bank EWP	-0.0228 (0.0250)	-0.00979 (0.0139)	-0.0539 (0.0402)	-0.236 (0.253)
Treat: Mobile EWP	-0.0212 (0.0251)	-0.0173 (0.0133)	-0.00944 (0.0410)	-0.217 (0.253)
Treat: Bank Only	0.0499 (0.0457)	-0.0136 (0.0227)	-0.0191 (0.0746)	0.420 (0.453)
Treat: Mobile Only	-0.0118 (0.0304)	-0.0137 (0.0162)	-0.0694 (0.0488)	-0.137 (0.306)
Observations	2,279	2,279	2,279	2,279
R-squared	0.075	0.019	0.086	0.070
Basic BL Controls	✓	✓	✓	✓
Control Mean EL	0.761	0.0516	6.960	7.525

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Surprisingly, no average treatment effects of mobile accounts

Remittances: Heterogeneity by Gender

VARIABLES	(1) Any sent	(2) Num recipients: Dhaka	(3) Num recipients: village	(4) Log remittances
Treat: Bank EWP	-0.0428 (0.0334)	-0.00898 (0.0161)	-0.0902 (0.0579)	-0.436 (0.342)
Treat: Mobile EWP	-0.0663* (0.0339)	-0.0197 (0.0160)	-0.0620 (0.0581)	-0.659* (0.345)
Treat: Bank Only	0.0209 (0.0614)	-0.0103 (0.0275)	-0.0404 (0.1000)	0.111 (0.620)
Treat: Mobile Only	-0.0552 (0.0414)	-0.0102 (0.0204)	-0.154** (0.0680)	-0.608 (0.422)
Treat: Bank EWP* Male	0.0440 (0.0506)	-0.00161 (0.0287)	0.0784 (0.0788)	0.515 (0.503)
Treat: Mobile EWP* Male	0.102** (0.0504)	0.00635 (0.0269)	0.119 (0.0804)	1.091** (0.501)
Treat: Bank Only* Male	0.0621 (0.0917)	-0.0170 (0.0463)	0.0735 (0.148)	0.623 (0.898)
Treat: Mobile Only* Male	0.0997* (0.0604)	-0.00949 (0.0327)	0.197** (0.0968)	1.129* (0.599)
Observations	2,279	2,279	2,279	2,279
R-squared	0.078	0.027	0.092	0.087
Basic BL Controls	✓	✓	✓	✓
Control Mean EL	0.761	0.0516	6.960	7.525

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Mobile treatments: opposite patterns by gender. Women reduce remittances, men increase them

Recap: Assets and Remittances

No average treatment effects on:

- ▶ large asset purchases
- ▶ remittances

But, this non-result hides heterogeneity

- ▶ For women, formal savings is a substitute for remittances and asset purchases
- ▶ For men, if anything, it is the opposite

Suggests that consumption priorities not necessarily aligned within the household. Important to keep in mind when designing interventions.

Summary of Results

- ▶ Treatments “worked”: stimulated active use of accounts (except Mobile only)
 - ▶ Detectable increases in savings with both bank treatments
 - ▶ Extensive margin savings response for Bank EWP
 - ▶ Changes in the composition of savings and asset holdings in Bank treatments
- ▶ Improvements in shock mitigation, especially Mobile EWP
- ▶ Changes in trust of financial intermediaries in all treatments
- ▶ Surprisingly, no average effects of any treatment on remittances

We also find striking heterogeneity by gender

Introduction

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Experimental Design

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Impacts of Electronic Wage Payments

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Policy Implications

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Implementation Issues and Consumer Protection

Implementation Issues

- ▶ Evidence that technology is beneficial for workers
- ▶ Significant up-front resistance among workers and management
- ▶ Two major sets of concerns:
 - ▶ Risks to privacy and account security
 - ▶ Risk of losing access to account, lack of proper recourse mechanisms
- ▶ Electronic payroll accounts are a good example of how lack of trust can slow down adoption of a beneficial new technology!
- ▶ Implementation of digital payroll accounts revealed obstacles to optimal use of accounts at the level of
 - ▶ Workers
 - ▶ Banks and mobile payments providers
 - ▶ Regulators

...potentially compounding risks and limited trust in the technology

Workers: Literacy and Financial Capability

- ▶ Low literacy and financial literacy
 - ▶ Generally low literacy levels - 30% illiterate in our sample
 - ▶ Sign-up procedure complicated - requires assistance
 - ▶ Workers learn to navigate technology quickly...
 - ▶ ...but confidentiality of PINs, reliance on supervisors, literate workers or bank employees remains a concern
- ▶ Interactions with bank or mobile provider often require an intermediary, generating potential risks for the worker

Workers: Trust in Formal Accounts

VARIABLES	(1) 1000 bank 1mo	(2) 5000 bank 1yr	(3) 1000 mobile 1mo	(4) 5000 mobile 1yr	(5) Banks care	(6) Mobile cares	(7) Rec. bank	(8) Rec. mobile
Treat: Bank EWP	0.306* (0.174)	0.387** (0.161)	0.246 (0.204)	0.178 (0.191)	0.0376** (0.0155)	0.0443* (0.0252)	0.0662*** (0.0233)	0.0558* (0.0287)
Treat: Mobile EWP	0.308* (0.175)	0.332** (0.163)	1.263*** (0.196)	1.122*** (0.186)	0.0150 (0.0170)	0.140*** (0.0224)	0.0384 (0.0242)	0.169*** (0.0268)
Treat: Bank Only	0.274 (0.265)	0.203 (0.254)	0.594* (0.332)	0.432 (0.316)	0.000455 (0.0260)	0.0928*** (0.0321)	-0.0548 (0.0424)	0.0532 (0.0436)
Treat: Mobile Only	0.428** (0.199)	0.412** (0.187)	0.793*** (0.229)	0.606*** (0.219)	0.0217 (0.0194)	0.114*** (0.0266)	0.0505* (0.0289)	0.127*** (0.0322)
Observations	1,935	2,278	1,935	2,278	1,935	1,935	1,935	1,935
R-squared	0.077	0.087	0.106	0.098	0.041	0.073	0.054	0.091
Basic BL Controls	✓	✓	✓	✓	✓	✓	✓	✓
Control Mean EL	7.687	7.635	6.406	6.256	0.920	0.783	0.805	0.670

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

- ▶ High stakes - worries about reliability, access, recourse are justified!
- ▶ Mobile starts with a trust deficit. Treatment brings trust in mobile to levels of trust in banks. Results similar by gender.

Banks and Mobile Providers

- ▶ Is the Product Appropriate?
 - ▶ Bank accounts poorly targeted to low-income consumers, no-frills accounts have limited add-on services
 - ▶ Mobile money product easier to use, better tailored to customer segment, but limited use as gateway to additional financial services
- ▶ How Reliable is the Payments Technology?
 - ▶ **Banks:** Reliability of ATMs, replenishment, power outages
 - ▶ Banks often not equipped to provide adequate tech and customer support, especially outside major urban areas
 - ▶ **Mobile Providers:** Everyday usage more reliable, but issues with de/re-activation of accounts, recovery of PINs, lost sim cards
- ▶ Prepared to Serve the Customer Segment?
 - ▶ Banks often focus on high-income segment, lack experience and infrastructure to serve mass-market and payroll customers
 - ▶ Significant administrative requirements for account opening and ongoing customer support, banks rarely prepared to handle this

Regulators: Uncertainty and Inappropriate Regulation

- ▶ Inappropriate regulation
 - ▶ Documentation requirements difficult to fulfil for most workers
 - ▶ Standard application/KYC forms not appropriate for low-income customers; workers cannot complete process without assistance
 - ▶ No unified forms for add-ons, limiting financial inclusion impact
 - ▶ Workers need intermediary, again creating consumer protection issues
- ▶ Regulatory Uncertainty
 - ▶ 5 separate regulation events in < 2 years that threatened our study
 - ▶ Huge risk for employers and employees
 - ▶ Mobile money: risk of financial regulation and mobile regulation

Discussion

Should employer or the financial service provider be the bridge between workers and the financial system?

- ▶ Broadly positive impacts of all treatments on trust in financial system, preferences for formal accounts, and job satisfaction
- ▶ Moreover, EWP accounts do impact economic outcomes
- ▶ May also have scope for being particularly beneficial for women
- ▶ Cost-savings for the employer

But what is the market failure?

- ▶ Up-front resistance by workers
- ▶ Insufficient access to documentation
 - ▶ Hard to pass KYC
- ▶ Workers develop trust, learn to use technology to their advantage
 - ▶ But: benefits may backfire with botched implementation!
- ▶ Regulatory uncertainty
 - ▶ During project 5 separate regulatory changes threatening the project

