Evidence Showcase
Innovations in Financial Capability and Financial Services for the Poor
5 November 2015

Presented by the IPA Financial Inclusion Program
Innovations for Poverty Action (IPA)

IPA was created in 2002 to discover and promote effective solutions to global poverty problems.

- **Innovate**: Work with partners to generate new ideas
- **Evaluate**: Identify what works and what doesn’t using randomized controlled trials (RCTs)
- **Replicate**: Repeat experiments to take results from promising to proven
- **Communicate**: Communicate policy results to help practitioners and policymakers pick the most effective products and programs
- **Scale**: Help scale up effective programs

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Financial Inclusion Program (FIP)

- Design & test behaviorally-informed programs and products that encourage healthy financial decisions among the poor
- Financial capability work supported by the Citi Foundation
Today’s Speakers

Tarek Ghani  
*Postdoctoral Fellow*  
Woodrow Wilson School, Princeton University

José Tessada  
*Associate Professor*  
Pontificia Universidad Católica de Chile

Marina Dimova  
*Vice President*  
ideas42
Questions?
Contact Us

http://www.poverty-action.org
financialinclusion@poverty-action.org

Want to hear more from FIP?
@2pm: Better Decision-Making with Randomized Controlled Trials
http://www.poverty-action.org/program-area/financial-inclusion/events
Mobile-izing Savings with M-Pasandaz: Research Highlights for FI2020 Evidence Showcase

Tarek Ghani, Princeton University
Joint work with Joshua Blumenstock (UW) and Michael Callen (Harvard)

Supported by:
Motivation: Why Automatic Savings?

Low rates of formal saving in poor countries
- 4% Afghanistan, 13% South Asia, 16% SSA (Findex 2014)

Many constraints to saving...
- Limited infrastructure; Credit and liquidity constraints;
  Intra-household and intra-family dynamics

...Including several behavioral explanations
- Inattention, forgetfulness, salience; Complexity of financial decision-making; Procrastination, self-control

Can automatic payroll deductions increase savings by the emerging middle class?
Product Design: Introducing “M-Pasandaz”

“M-Pasandaz:” A mobile phone-based savings account, with automatic payroll deduction

Automatic savings contributions
- Up to 10% of salary
- Contributions automatically deducted from regular salary

Simple phone-based interface
- Built on top of M-Paisa mobile money platform
- Easy to check balance, change contribution level

Employer-sponsored matching contributions
- Provided as incentive for employee to contribute
- Based on popular 401(k) plan in U.S.
Research Design: Randomization

949 employees of Afghan firm randomized by:

1. Default enrollment status
   - **Default Out**: 0% of salary auto-deposits to M-Pasandaz
   - **Default In**: 5% of salary auto-deposits to M-Pasandaz
   - Note: anyone can change rate, at any time, by calling HR

2. Matching incentive level
   - **White Plan**: No matching incentives provided
   - **Blue Plan**: 25% match on all contributions
   - **Red Plan**: 50% match on all contributions
   - Note: employees could not change plan type
Timeline

- Dec 2014: mandatory training, plan status announced
- “Open enrollment” until Jan 15, First payday on Jan 21
- Last deposits on June 21, Incentives paid on July 23
Results: “Pricing the default effect”

Default is roughly equivalent to a 50% match
Results: Evidence of New Savings

Log M-Pazandaz Savings (Afs)

Log Total Savings (Afs)
Practical Implications

Global trends in income & technology adoption
- 42% of developing workforce in/above middle-class (ILO 2011)
- 200m active mobile money users in 89 countries (GSMA 2015)

Strong demand to continue using M-Pasandaz:
- 45% of employees opted to continue under 0% incentives
- Employer plans to adopt Red Plan (50% match) and 5% default.

Opportunities to scale automatic savings:
- Public pensions and private employer “provident funds”
- Integration into cash transfer programs (e.g. GiveDirectly)
PERSONALIZED INFORMATION AS A TOOL TO IMPROVE PENSION SAVINGS

Results from a Randomized Control Trial in Chile

Olga Fuentes  Jeanne Lafortune  Julio Riutort
José Tessada  Felix Villatoro
Acknowledgements

• Superintendencia de Pensiones
• ChileAtiende
• And last but not least...
  – Citi IPA Financial Capability Research Fund
The Challenge – Some Context

• **Defined benefits** pension systems
  – Many have solvency issues and might be costly to implement for some countries

• Several countries have chosen to move to a *defined contribution* system with individual savings accounts...
  – Chile started in 1981

• But... These systems require much more financial knowledge from its participants
The Challenge

• The current situation
  – Low pension savings
  – Large heterogeneity by gender and income
  – Labor market performance has a direct impact on savings

• Why undersaving?
  – One potential explanation: lack of understanding of the system

• Thus, our question:

  CAN WE IMPROVE PENSION SAVINGS BY PROVIDING PERSONALIZED INFORMATION TO PARTICIPANTS ON HOW TO INCREASE THEM?
What do we do?

• Bring a pension “simulator” to the people...
  – Complete version available online BUT used mostly by high income workers – not the group we are most worried about
  – Key: bring the pension simulator to lower income affiliates

• Simplified version of the Superintendencia’s “simulator”
  – Uses administrative data to provide “suggestions” on how to improve pension at retirement
  – Installed self-service modules in “ChileAtiende”: government office that centralizes interaction between citizens and the government
  – We expect to reach lower income affiliates
¿Qué puede hacer para aumentar su pensión?

Aumentar el número de veces que cotiza en un año
Si actualmente tiene entre 20 y 50 años y cotiza la mitad del tiempo, cotizar un mes más en el año puede aumentar su pensión entre 8% y 16%.

Hacer ahorro voluntario
Si actualmente tiene entre 20 y 50 años, hacer APV por un 1% de su remuneración puede aumentar su pensión entre 7% y 10%.

Postergar la edad de retiro
Sin importar su edad actual, al decidir atrasar la jubilación en un año, puede aumentar su pensión en un 8% aproximadamente.
What do we do?
So... What do we do?

Treatment
Who participated?

<table>
<thead>
<tr>
<th>Gender composition</th>
<th>All affiliates</th>
<th>Participants</th>
<th>On-line simulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>46.67%</td>
<td>51.73%</td>
<td>30.64%</td>
</tr>
<tr>
<td>Men</td>
<td>53.33%</td>
<td>48.27%</td>
<td>69.36%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age composition</th>
<th>All affiliates</th>
<th>Participants</th>
<th>On-line simulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>28</td>
<td>28</td>
<td>34</td>
</tr>
<tr>
<td>50%</td>
<td>38</td>
<td>39</td>
<td>48</td>
</tr>
<tr>
<td>75%</td>
<td>49</td>
<td>49</td>
<td>58</td>
</tr>
<tr>
<td>Average</td>
<td>38.92</td>
<td>38.98</td>
<td>46.20</td>
</tr>
<tr>
<td>St. Dev.</td>
<td>12.51</td>
<td>12.21</td>
<td>13.16</td>
</tr>
</tbody>
</table>
People are more knowledgeable than we thought...

Split our sample into 3 groups:

1: Underestimated their pensions
2: Got it about right
3: Overestimated their pensions

And estimate the treatment effect separately for each group
Responses-Contributing or not

Mandatory
(linked to labor force participation)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>1 months</th>
<th>2 months</th>
<th>3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_1$</td>
<td>0.0377</td>
<td>0.0487</td>
<td>0.00422</td>
</tr>
<tr>
<td></td>
<td>(0.0327)</td>
<td>(0.0324)</td>
<td>(0.0343)</td>
</tr>
<tr>
<td>$T_2$</td>
<td>-0.000954</td>
<td>-0.00717</td>
<td>-0.0285</td>
</tr>
<tr>
<td></td>
<td>(0.0388)</td>
<td>(0.0387)</td>
<td>(0.0431)</td>
</tr>
<tr>
<td>$T_3$</td>
<td>-0.0553**</td>
<td>-0.0514**</td>
<td>-0.0456*</td>
</tr>
<tr>
<td></td>
<td>(0.0220)</td>
<td>(0.0234)</td>
<td>(0.0251)</td>
</tr>
</tbody>
</table>

Observations 2,327 2,329 2,012
R-squared 0.228 0.218 0.241

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Voluntary

<table>
<thead>
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<th>VARIABLES</th>
<th>1 months</th>
<th>2 months</th>
<th>3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_1$</td>
<td>0.0162***</td>
<td>0.0136**</td>
<td>0.0133*</td>
</tr>
<tr>
<td></td>
<td>(0.00593)</td>
<td>(0.00622)</td>
<td>(0.00716)</td>
</tr>
<tr>
<td>$T_2$</td>
<td>0.0286*</td>
<td>0.0103</td>
<td>0.0142</td>
</tr>
<tr>
<td></td>
<td>(0.0155)</td>
<td>(0.0160)</td>
<td>(0.0186)</td>
</tr>
<tr>
<td>$T_3$</td>
<td>0.00312</td>
<td>0.000652</td>
<td>0.00926</td>
</tr>
<tr>
<td></td>
<td>(0.00851)</td>
<td>(0.00980)</td>
<td>(0.00982)</td>
</tr>
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</table>

Observations 2,327 2,329 2,012
R-squared 0.557 0.471 0.444

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Also increases the probability of retiring for older individuals who had underestimated their pension
### Results - Saving Amounts

Results were stronger for younger individuals and men for mandatory savings and for older participants and females for voluntary savings.

### Mandatory Savings (logs)

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<tr>
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<th>2 months</th>
<th>3 months</th>
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</thead>
<tbody>
<tr>
<td>$T_1$</td>
<td>0.245</td>
<td>0.295</td>
<td>-0.357</td>
</tr>
<tr>
<td></td>
<td>(0.334)</td>
<td>(0.333)</td>
<td>(0.358)</td>
</tr>
<tr>
<td>$T_2$</td>
<td>-0.0729</td>
<td>-0.0254</td>
<td>-0.355</td>
</tr>
<tr>
<td></td>
<td>(0.276)</td>
<td>(0.283)</td>
<td>(0.320)</td>
</tr>
<tr>
<td>$T_3$</td>
<td>-0.760***</td>
<td>-0.748**</td>
<td>-0.567*</td>
</tr>
<tr>
<td></td>
<td>(0.269)</td>
<td>(0.300)</td>
<td>(0.330)</td>
</tr>
</tbody>
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</thead>
<tbody>
<tr>
<td>$T_1$</td>
<td>0.127*</td>
<td>0.113</td>
<td>0.105</td>
</tr>
<tr>
<td></td>
<td>(0.0697)</td>
<td>(0.0722)</td>
<td>(0.0854)</td>
</tr>
<tr>
<td>$T_2$</td>
<td>0.280**</td>
<td>0.179</td>
<td>0.184</td>
</tr>
<tr>
<td></td>
<td>(0.126)</td>
<td>(0.135)</td>
<td>(0.144)</td>
</tr>
<tr>
<td>$T_3$</td>
<td>0.0159</td>
<td>-0.0151</td>
<td>0.103</td>
</tr>
<tr>
<td></td>
<td>(0.111)</td>
<td>(0.115)</td>
<td>(0.115)</td>
</tr>
</tbody>
</table>

Observations 2,158 2,160 1,868
R-squared 0.315 0.282 0.286

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

### Voluntary Savings (logs)

<table>
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</tr>
<tr>
<td></td>
<td>(0.111)</td>
<td>(0.115)</td>
<td>(0.115)</td>
</tr>
</tbody>
</table>

Observations 2,158 2,160 1,868
R-squared 0.538 0.477 0.456

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
What do we learn?

• First, self-service modules need somebody there to help or accompany: take up ratio significantly higher!

• Second, it is possible to inform (low income) investors and make them react even without commitment, but...
  – We deliver concrete and personalized information
  – Keep it simple!
  – Expect effects to fade away

• Third, heterogeneous impacts... Desirable? Exploit them? Reduce them?

• Fourth, mix and match treatments?
Financial Heuristics: Providing Timely Useful Financial Management Advice at Scale

Marina Dimova
Innovations in Financial Capability and Financial Services for the Poor
November 5, 2015
What is ideas42?

We use the theories of behavioral science to design solutions to some of the world’s most persistent social problems.
Across domains, across the globe
The problem: Financial literacy and counseling don’t seem to change behavior

Meta-Analysis of 201 studies

<table>
<thead>
<tr>
<th>Biased</th>
<th>Partially de-biased</th>
<th>Quasi-experimental</th>
<th>Randomized</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0%</td>
<td>7.0%</td>
<td>3.4%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

What could explain this behavior? And how it led us to the Financial Heuristics training.
Our solution: Financial Heuristics training over mobile

Innovations:

- **Content:** Create behavioral content that results in changes in business practices
- **Delivery channel:** Reach clients where they are, with a phone mini series
Content: The behavioral principle behind Financial Heuristics – Simplicity

- Keep two “drawers” – business and household
- Assign yourself a weekly salary
- If you “borrow” from the business, pay it back
- Only give credit to customers if prior credit is paid off
Financial Heuristics affects behavior: It improves business practices...

Drexler, Fischer and Schoar, 2014.
And more importantly, business revenues

Traditional Accounting

Rule of Thumb

Drexler, Fischer and Schoar, 2014.
Delivery: Our objective was to reach clients where they are at, cost-effectively
Initial insights: Getting clients to pick up the phone is not enough

- % of calls picked up
- % of message heard on average
Implications and next steps

• Financial Heuristics 2.0 over mobile to launch in April 2016

• Improved features:
  - Shorter content
  - Marketing firm copy-write of content to increase client engagement
  - Improved platform with more automated features

• The importance of iterative learning and product adaptation

• The overall objective: Supporting clients to write their own story
THANK YOU

Marina Dimova
marina@ideas42.org

Visit us at: www.ideas42.org