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Microfinance *tie-ins* in Mexico: Are they worth it?

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Outline

- Introduction
- Literature review
- Data and sampling
- Methodology
- Results (*Preliminary*)
- Conclusions (*Preliminary*)

Introduction

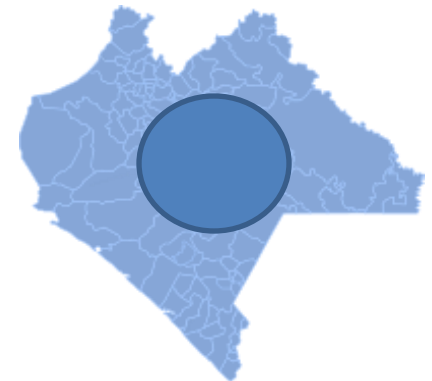
- Non-Financial Services have experienced major **changes** in the last 2 decades
- They are now demand-led services used by MFIs to enhance impact on **poverty alleviation**, but also to **mitigate credit risk** and as a **comparative advantage** in the market
- **Heterogeneity** of NFS: General education, health training, healthcare, business development, technical training, financial education, legal support, etc.

Research objectives

1. Participation determinants in NFS
2. Impact on general poverty alleviation & specific aims of Business Development Services & Preventive Health Services

Facts

- **Mexico**: Upper-middle income country but... extreme inequalities
- **Chiapas**:
 - Poorest State - GNI per capita \approx 4500 USD
 - Second highest deprivation:
 - Illiteracy for over 15: 21% (8.3%)
 - Incomplete primary: 36% (23%)
 - No piped water: 26% (10%)
 - Earth flooring: 33% (13.5%)
 - Maternal & infant mortality are twice the national average
 - **Lab for anti-poverty policies:**
Oportunidades (PROGRESA)
- **Microfinance**:
 - High competition



Literature review

- There is not an extensive academic literature on microfinance NFS due to data restrictions
- There are no previous studies on the **determinants of the demand for human capital** among microfinance borrowers
- There are few **analyses of NFS impact**:
 - McKernan (2002), positive non-credit benefits on self employment profits
 - Smith (2002), positive maternal and child health outcomes of “health banks”
 - Karlan and Valdivia (forthcoming), BDS services have an impact on business practices and MFI performance

Data

- **Primary** data: 434 standardized structured questionnaires and 4 focus group discussions with female clients of MFIs (July-Oct. 2009)
- **Secondary** supply side data (MFIs' databases)
- Clients of two NFS programs in **Chiapas**, Mexico, in peri-urban and rural settings:



Business Development Services (AISol): Adding 30 to 60 minute entrepreneurship/ business training sessions to normal bank meetings

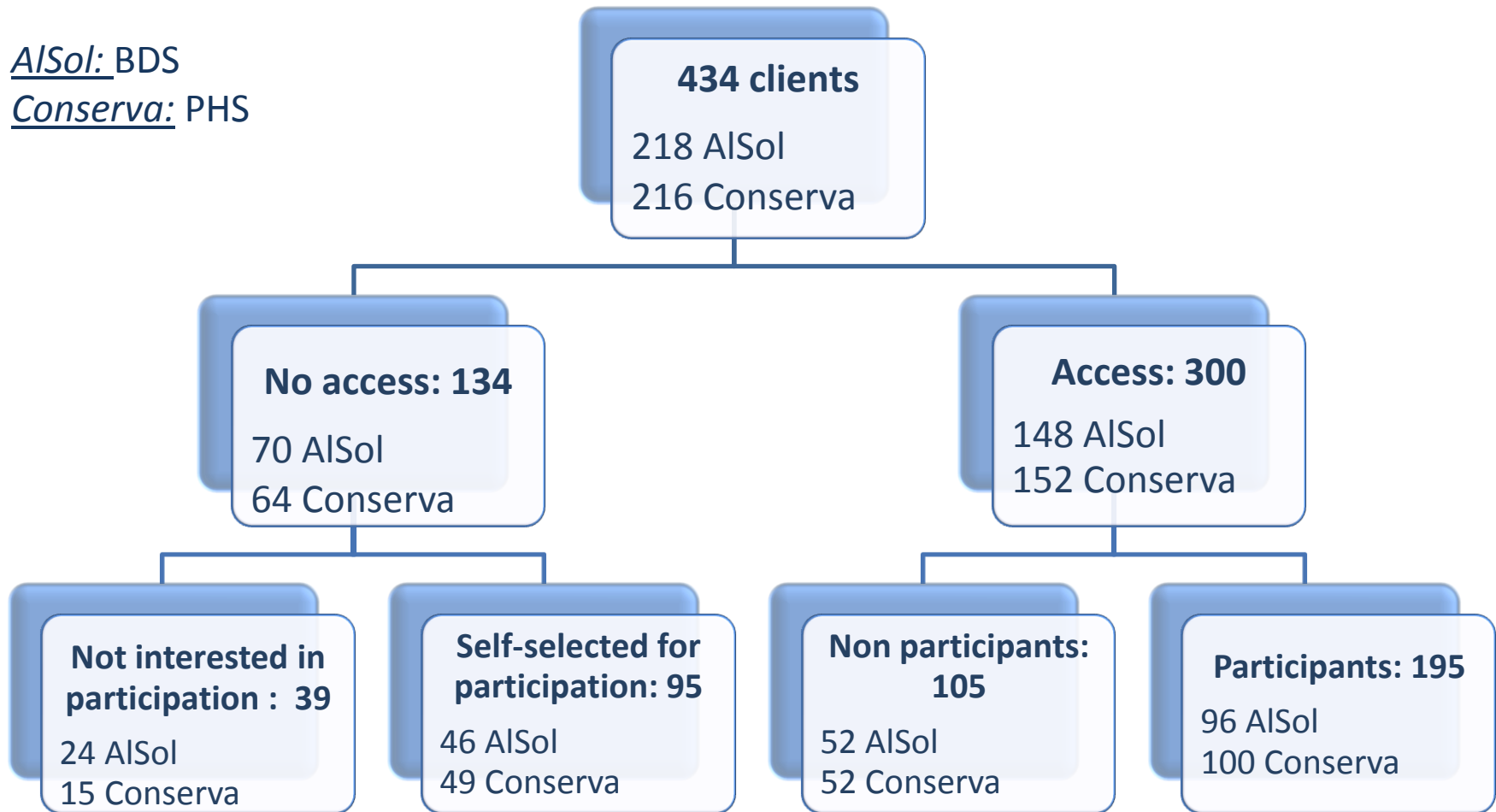


Preventive Health Services (CONSERVA): Adding one day "health consciousness-raising" activities. Training session (STDs & HPV), health checks and individual counselling

Sample

AlSol: BDS

Conserva: PHS



* Overall response rate was 78%

Sample

- Stratified random sampling based on access to the training
- Eligibility criteria differ between MFIs:
 - geographical location (BDS)
 - number of credit cycles (PHS)
- Sampling as a solution for endogeneity:
 - Non random program supply
 - Self-selection

Estimation framework

- Determinants of the demand of human capital: Probit model
- Impact of the trainings: DD approach

$$Y_{ij} = X_{ij}\alpha + V_j\beta + E_{ij}\gamma + I_{ij}\phi + T_{ij}\delta + \varepsilon_{ij}$$

X_{ij} -Personal & household characteristics

V_j -Village characteristics

E_{ij} -Access to NFS

I_{ij} -Interest in NFS

T_{ij} -Treatment ($E*I$)

- Extended equation to compare between NFS
- Exact specification of the model depends on nature of outcome (Y_{ij})
- FE to control for intra-municipality variation

Participation

- Participation depends more on demand than supply side factors
- Few robust determinants (full sample and only control groups)
- The participation decision in NFS: Oportunidades (+), female workers human capital ratio (-)
- Different determinants for different NFS types:
 - BDS: household head (+), human capital of working members (-)
 - PHS: age (+), years of education (+), Oportunidades (+), own house (-), months of business (-)

Impact: Poverty

	Baseline	Extended		
	NFS (δ)	BDS (δ_1)	PHS (δ_2)	F-test $\delta_1 = \delta_2$
Average monthly income pc (<i>OLS</i>)	0.179 (0.14)	0.313 * (0.18)	0.035 (0.17)	1.84
Food poverty status (<i>P</i>)	-0.067 (0.13)	-0.086 (0.13)	0.065 (0.18)	0.59
Capabilities poverty status (<i>P</i>)	-0.249** (0.12)	-0.268 * (0.14)	-0.178 (0.16)	0.23
Asset poverty status (<i>P</i>)	-0.176 * (0.09)	-0.461** (0.22)	-0.080 (0.12)	2.43

- Measure for impact is the treatment coefficient

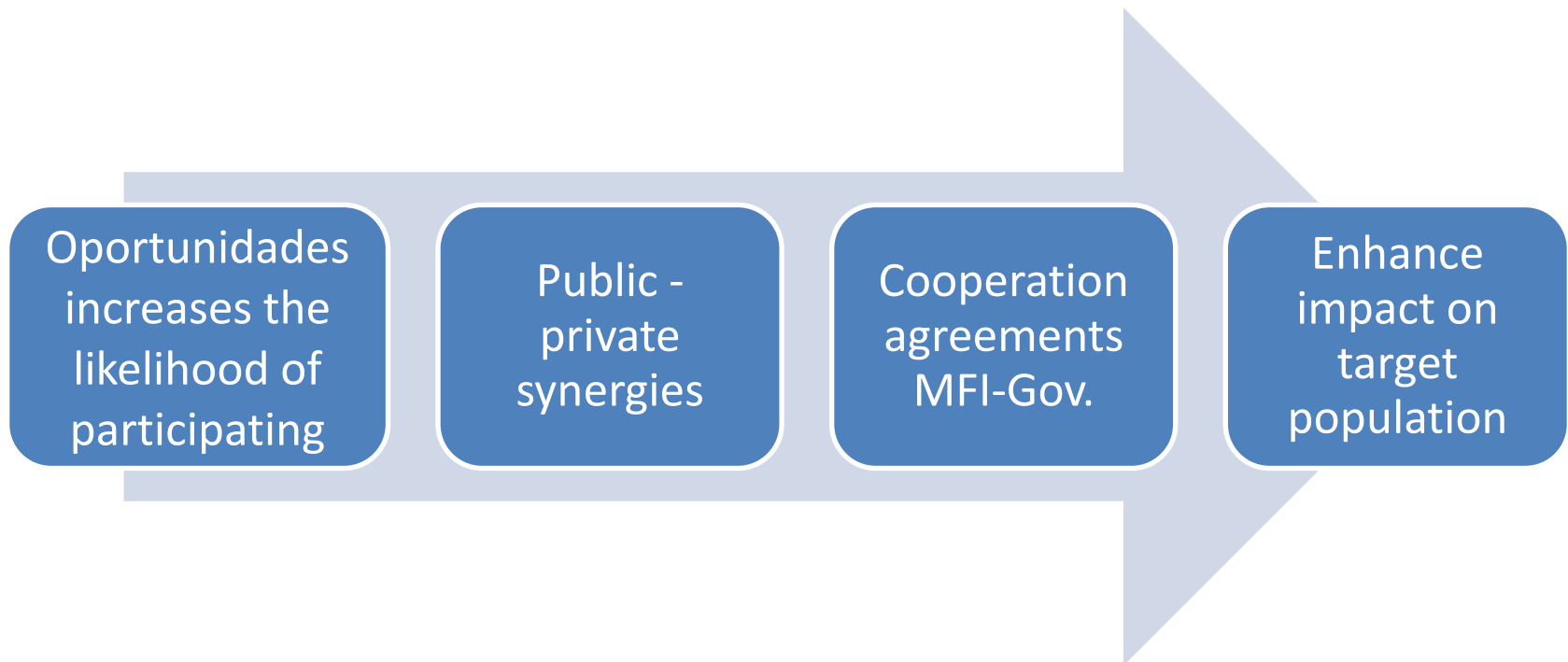
- Results are robust to different poverty measures (poverty gap) and post-specification tests

Impact: Specific outcomes

	Baseline	Extended		
	NFS (δ)	BDS (δ_1)	PHS (δ_2)	F-test $\delta_1 = \delta_2$
<i>Health</i>				
Health status (<i>OP</i>)	0.429 * (0.23)	0.087 (0.29)	0.610 * (0.35)	1.43
<i>Business</i>				
Business revenues (<i>T</i>)	0.769 (0.59)	0.319 (0.61)	1.153 (0.86)	0.89
Revenue variation (<i>T</i>)	0.387 (0.57)	0.266 (0.57)	0.429 (0.84)	0.04
Best practices index (<i>OP</i>)	0.240 (0.26)	0.225 (0.34)	0.283 (0.34)	0.02

Conclusion I

Participation determinants are consistent with the literature of human capital demand, though different for each type of NFS



Conclusion II

- Evidence of treatment impacts around the capabilities and assets poverty lines.
- Effects vary between the two programs but the differences between them are not significant in any case.
- The effects of PHS on monetary poverty outcomes seem to take longer to materialize.
- No significant evidence of impact on business measures like revenue, variation in sales between good and bad months or best practices.
- PHS clients report a significant increase in their perceived health status.

Questions and feedback

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