INVESTING IN DIGITAL TECHNOLOGY TO INCREASE MARKET ACCESS FOR WOMEN AGRI-PRENEURS IN GUATEMALA (DIGITAGRO PILOT)

Agriculture and Food GP  LAC Gender Innovation Lab Poverty and Equity GP  infoDev Tust Fund

WORLD BANK GROUP

November 18th, 2021
Most important problems reported by women in agriculture in rural San Marcos, Guatemala

- Problems in transporting products/high distance
- Low selling price
- Not able to find a place to sell
- Lack of water for agriculture
- Products damaged
- Lack of financing
- Covid-19
- Increase in input prices
- Competition of imported products
- Limited/infertile land
- Not able to get input
- Lack of personnel
- Low production
- Social conflicts
- Local competition
- Lack of training/orientation about harvesting
- Unstable prices
- Little children to care
- Other (lack of time/sickness/no answer)

Women in agriculture face even greater barriers (World Bank, 2020)
- Social norms
- Business networks
- Land ownership, input access
GUATEMALA’S SCHOOL FEEDING PROGRAM. A NEW MARKET OPPORTUNITY FOR LOCAL FARMERS.

SFP is a response to low-productivity agriculture and high malnutrition.

Schools

Registered providers

Farmers

Local Market

Buys from small farmers (by law)

Prices are agreed and revised periodically

Emphasis on product quality, nutritiousness, and safety.
DIGITAGRO: INVESTING IN DIGITAL TECHNOLOGY TO INCREASE MARKET ACCESS FOR WOMEN AGRI-PRENEURS

1. E-commerce platform with WFP (early version used in 20K schools during covid)
2. Agriculture extension videos with FAO
3. IE of information campaign with WBG LAC GIL

San Marcos department

- Increased knowledge
- Willingness to participate
- Participation
- What barriers remain?

Provide information through video (WhatsApp) and SMS encouraging women to participate in Guatemala’s School Feeding Program (SFP).

230 villages San Marcos Guatemala
THE INTERVENTION ENCOURAGES WOMEN TO PARTICIPATE IN THE SCHOOL FEEDING PROGRAM

1. What is the SFP
2. How to join
3. Food quality and safety practices
4. Contact info of local provider and local official
5. Prices and products

1 video through WhatsApp

To maximize impacts and accessibility

- Individualized verification process.
- Phone Credit.
- Featured a female local provider
- Narrated by a female voice.
- Available in Mayan language.
RESULTS
THE INTERVENTION INCREASED AWARENESS ABOUT THE SFP AS A POTENTIAL BUSINESS OPPORTUNITY

Women are more likely to report that they know they can sell their products to the SFP

... and that they know they can register and how
THE INTERVENTION ALSO INCREASED THE LIKELINESS OF SELLING SFP PRODUCTS

- Any SFP agricultural or animal product: 0.588 (Control), 0.642 (Treatment)
- Any SFP animal product: 0.380 (Control), 0.457* (Treatment)
- Any SFP agricultural product: 0.282 (Control), 0.314 (Treatment)
- Eggs: 0.341 (Control), 0.404 (Treatment)
- Chicken: 0.068 (Control), 0.122** (Treatment)
- Cheese: 0.032 (Control), 0.037 (Treatment)
BUT WE DO NOT FIND EVIDENCE OF CHANGES IN THE LIKELINESS OF PARTICIPATING IN THE SFP OR WILLINGNESS TO DO SO

The intervention did not increase the likeliness registering as a provider or the willingness to do so

... neither did it increase the likeliness of selling to a provider or the willingness to engage with one.
WHY NOT PARTICIPATING? POTENTIAL EXPLANATIONS (1/2)

Price mechanism

MINEDUC + Schools

MAGA + Farmers

Product mismatch

<table>
<thead>
<tr>
<th>Product</th>
<th>Not Registered</th>
<th>Registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cucumber</td>
<td>0.02</td>
<td>0.02</td>
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<tr>
<td>Limes</td>
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<td>0.12</td>
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<tr>
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percentage of women in the control group

WHY NOT PARTICIPATING? POTENTIAL EXPLANATIONS (1/2)

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percentage of women in the control group
WHY NOT PARTICIPATING? POTENTIAL EXPLANATIONS (2/2)

Registration is not seen as something easy

Trust in Institutions

MAGA

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<th>Control</th>
<th>Treatment</th>
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<tbody>
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<tr>
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MINEDUC

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SAT

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THESE LESSONS ARE TIMELY!

• The pilot shows that digital technologies can be used in rural Guatemala to bring information about the SFP and encourage women to participate in agri-businesses.

• However, some barriers remain: (1) product mismatches (2) difficulty to register (3) price mechanism (4) trust in institutions

• Guatemala’s Ministry of Agriculture plans an expansion of the SFP.
  • Use DIGITAGRO tools
  • But needs to complement with extension programs and better align with market conditions.
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THE DIGITAGRO PILOT TESTING THE POTENTIAL OF DIGITAL TECHNOLOGIES TO ENHANCE MARKET ACCESS FOR WOMEN

230 villages
San Marcos
Guatemala

Treatment Group

Control Group

Provide information through videos (WhatsApp) and SMS about a new market opportunity: Guatemala’s School Feeding Program (SFP).

Experiment

Test

- Increased knowledge
- Willingness to participate
- Participation
DIGITAGRO: INVESTING IN DIGITAL TECHNOLOGY TO INCREASE MARKET ACCESS FOR WOMEN AGRI-PRENEURS

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San Marcos department
- 80% multidimensional poverty
- 2nd department for out-migration
- Prevalence of Indigenous in the highlands
- Heterogeneous climate areas and agricultural production systems