Webinar #3: Enhancing Poverty Alleviation Performance: Quantifying Changes Experienced by Local Stakeholders

Presenters:
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- Yaquta Kanchwala Fatehi, Research Associate- Impact Assessment- William Davidson Institute
- Jean-Christophe Laugee, Director Ecosystem Fund- Danone

This webinar is part of a larger series “Assessing Multidimensional Poverty Impacts: Techniques that are Easy-to-Implement and Customizable”.

Schedule of events:

Register at: http://wdi.umich.edu/research/bop/webinar2014
Agenda

1. Guest speaker – What is the Danone Ecosystem Fund
2. WDI’s Overview of quantitative methodologies
3. Guest speaker – Other Danone Ecosystem Fund studies
4. Questions and answers
5. References
6. Annex
Co-create innovative business solutions with inclusive value for Danone and its Ecosystem Partners
An 100 M€ endowment fund aiming at strengthening Danone’s ecosystem by creating both social and economic value for Danone & its Partners

WHAT FOR? Jobs creation / Competencies development / Set of Organizational capabilities for the partners

HOW? Through inclusive partnerships (with non for profit)

- Farmers’ collective organization
- Sustainable watershed management
- Sales force Institute
- ‘Registered’ caregiver Institute
- Demo farm
- Micro-entrepreneur sales schools
- Family farm
- rBU

SOURCING
TERRITORY
MICRO DISTRIBUTION
CARING SERVICES
RECYCLING
3 Key Success Factors

Business as part of the solution.

Co-creation with non-for-profit for common good.

Leadership for large scale.
COMMON INTEREST

Professional empowerment

47,000 including 4,000 jobs created

Local capabilities creation

13 M€ turnover generated

COMPETITIVE ADVANTAGE

Women empowerment

14,300

Secure sourcing

Topline growth

Company reputation & brand equity

Employees pride
Empowerment is a process to enable people to develop and strengthen their employability and their social & economic inclusion.
Understand our impact on our value chain to anchoraget sustainably our inclusive partnerships in our business models & Contribute to Danone credibility & robustness through our social & economic footprint.

**PROVING**
- Leverage our credibility valorizing our approach, intention & mean
- Accountability & report to shareholders (preliminary to final results)
- Foster our reputation through final results publication by most credible researchers

**IMPROVING**
- Professionalize social innovation management & governance
- Enable projects success
- Understand in a in depth way how Ecosystem projects contribute to Danone robustness

**SHARING**
- Enlarge overall awareness, knowledge
- Network around social impact
- Maximize results publication visibility

T0→Year 3
Semilla provides formal sector employment with social benefits such as healthcare to women (and some men) from low-income segments in Mexico City. In addition, Semilla provides sales as well as ‘Skills for Life’ trainings to their salespersons.
The impact methodology

Multidimensional view of poverty reduction includes
1. Voice of all local stakeholders
2. Outcome indicators on multiple dimensions of well-being
3. Positive and negative impacts

Strategic Analysis - Qualitative
- Magnitude/likelihood

Performance Analysis – Quantitative
- Research Design
  - Sample Selection
  - Sample Size
- Survey Development
- Data Collection
- Data Analysis
- Reporting and Continued Enhancement

Use findings to enhance business model design

Business model of BoP venture

Strategic Analysis

Use findings to design process to track impacts

Performance Analysis

Use findings to enhance process to track impacts

Use findings to enhance business model design
Key activities during the Strategic Analysis Phase

I. Background research and preparation

1. Discuss overall research goals and goals for literature review
2. Conduct literature reviews and interviews with experts to identify holistic set of potential impacts
3. Develop interview protocol for qualitative interviews to explore potential impacts
4. Develop field-visit schedule prior to visit to maximize time on the field

II. On-site qualitative research

1. Conduct interviews with key stakeholders to explore and refine list of potential impacts
2. Transcribe, summarize and analyze interviews
3. Prioritize impacts based on magnitude and likelihood
4. Analyze impacts by stakeholder and area of well-being
## Qualitative interviews: Mexico City

<table>
<thead>
<tr>
<th>Interviewee/ Key Stakeholder</th>
<th>Number of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semilla Senior Management</td>
<td>11</td>
</tr>
<tr>
<td>Semilla Partners and Experts</td>
<td>8</td>
</tr>
<tr>
<td>Semilla Salespersons</td>
<td>10</td>
</tr>
<tr>
<td>Semilla Supervisors</td>
<td>3</td>
</tr>
<tr>
<td>Semilla Zone Chief</td>
<td>1</td>
</tr>
<tr>
<td>Semilla Social Facilitators/Trainers</td>
<td>2</td>
</tr>
<tr>
<td>Semilla Customers</td>
<td>11</td>
</tr>
<tr>
<td>Ex-Semilla Salespersons</td>
<td>3</td>
</tr>
</tbody>
</table>
# Key impact variables

<table>
<thead>
<tr>
<th>Area of well-being</th>
<th>Salesperson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-Being</td>
<td>Change in income</td>
</tr>
<tr>
<td></td>
<td>Change in perception of income stability</td>
</tr>
<tr>
<td></td>
<td>Change in economic independence</td>
</tr>
<tr>
<td></td>
<td>Change in savings</td>
</tr>
<tr>
<td>Capability Well-Being</td>
<td>Change in physical health</td>
</tr>
<tr>
<td></td>
<td>Change in job skills</td>
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<tr>
<td></td>
<td>Change in self-esteem (sense of worth and value)</td>
</tr>
<tr>
<td></td>
<td>Change in self-efficacy (power to change their life)</td>
</tr>
<tr>
<td></td>
<td>Change in empowerment</td>
</tr>
<tr>
<td>Relationship Well-Being</td>
<td>Change in parenting behavior</td>
</tr>
<tr>
<td></td>
<td>Change in psychological violence</td>
</tr>
<tr>
<td></td>
<td>Change in access to formal sector</td>
</tr>
<tr>
<td></td>
<td>Change in status in community</td>
</tr>
<tr>
<td></td>
<td>Change in status at home</td>
</tr>
</tbody>
</table>

Key impacts of high magnitude and likelihood selected based on analysis of qualitative interview data
## Beyond Strategic Analysis

### I. Background research and preparation

1. **Discuss overall research goals and goals for literature review**

2. **Conduct literature reviews and interviews with experts to identify holistic set of potential impacts**

3. **Develop interview protocol for qualitative interviews to explore potential impacts**

4. **Develop field-visit schedule prior to visit to maximize time on the field**

### II. On-site qualitative research

1. **Conduct interviews with key stakeholders to explore and refine list of potential impacts**

2. **Transcribe, summarize and analyze interviews**

3. **Prioritize impacts based on magnitude and likelihood**

4. **Analyze impacts by stakeholder and area of well-being**

### III. Research design and additional research

1. **Conduct literature review on prioritized variables to deepen understanding of the constructs**

2. **Identify research design including sample selection, sample size and timing between data points**

3. **Design detailed data collection process including timing for pretest, pilot, use of incentives, etc.**

4. **If applicable, select third party data collection organization**
Research design: The Semilla effect

Research Question: What is the effect of employment under Semilla i.e. what is the “Semilla Effect”?

Why a treatment and a comparison group?
1. Rule-out natural improvements or external events

Why baseline and endline data collection points?
1. Baseline allows to compare the two groups prior to intervention to ensure they are similar
2. Endline assesses the mid-term results of the intervention and compares the data to the baseline with sufficient number of respondents to make strong conclusions

Time 1: Baseline (at job training)
- Survey treatment group to establish baseline
- Similar in Profile

Time 2: Endline (during operations)
- Same survey asked to measure change in treatment group
- Similar in Profile

Time = 0
6 weeks
Comparison group selection and sample size

Comparison group selection filters

Randomly selected at public spaces: parks, markets, etc.

Comparison Group

Selection Filters
(1) Age (>18 years)
(2) Neighborhood
(3) Education level
(4) Has previous sales experience
(5) Income
(6) Employment status
(7) Never worked for Semilla

Individuals from the Community

What to keep in mind when developing your comparison group?
1. Identify filters to be used to select comparison group participants such that they are as similar to the treatment group participants as possible
2. Calculate the size of the sample that is required at end of study using power calculation. Next take into account the expected attrition and back calculate the size of the sample at the start of the study
Treatment group selection and sample size

Semilla identifies persons that meet the required profile

Three Interviews conducted by Semilla

A week of class room training followed by a week of field training. On successful completion, a contract to join Semilla

Administer baseline survey right after the Semilla interviews (on first day before training begins)

What to keep in mind when developing your treatment group?
1. Consider the timing of the baseline interview
2. Calculate the size of the sample that is required at end of study using power calculation. Next take into account the expected retention rate and likelihood of finding people again six weeks later and back calculate the size of the sample at the start of the study

Endline is at the end of 6 weeks

Keep in mind retention rate and sample size required at end of study
Performance Analysis: Next steps

Survey Development

I Survey design
1 Select indicators
2 Select survey instruments
3 Revise survey
4 Translate survey
5 Write cognitive interview guide

II Pretest
1 Train interviewers
2 Conduct cognitive interviews
3 Discuss data collection process
4 Finalize comparison group
5 Revise survey and protocols

Data Collection

III Pilot
1 Train interviewers
2 Collect data
3 Finalize open issues with data collection
4 Revise survey and protocols

IV Baseline
1 Collect data

V Endline
1 Collect data

VI Data analysis
1 Clean data
2 Create scales
3 Run statistics

VII Reporting
1 Develop and share recommendations
2 Incorporate findings into business
3 Continued impact assessment
En la **semana pasada**, ¿qué tan frecuente realizó las siguientes actividades con las personas menores de 18 años que viven en su casa? Por favor, escoja una de estas cuatro opciones: Nunca, Algunas veces, A menudo, Muy a menudo. Recuerde que puede saltarse cualquier pregunta que se sienta incómodo.

<table>
<thead>
<tr>
<th></th>
<th>Nunca</th>
<th>Algunas veces</th>
<th>A menudo</th>
<th>Muy a menudo</th>
<th>NO SABE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. ¿Le ha hecho saber que realmente se preocupa por él/ella?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
<tr>
<td><strong>b. ¿Escucha cuidadosamente su punto de vista?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
<tr>
<td><strong>c. ¿Le ha gritado porque está enojado?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
<tr>
<td><strong>d. ¿Le ha mostrado su afecto y amor?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
<tr>
<td><strong>e. ¿Le ha dicho que lo(a) ama?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
<tr>
<td><strong>f. ¿Comprende la forma en cómo el/ella siente las cosas?</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>99</td>
</tr>
</tbody>
</table>

**Survey development**

**What to keep in mind when developing the survey?**

1. Find an existing instrument when possible
2. Create a new instrument if you cannot find one that has been used to measure your variable
3. Develop strong ‘Informed Consent’ form and introductions to set the tone
4. Order sections logically and keep sensitive questions towards to end
5. Collect feedback from experts prior to pretest
6. Translate to the local language and back translate to English to ensure correct translations
### Variables collected (number of questions)

<table>
<thead>
<tr>
<th>Economic Well-being</th>
<th>Capability Well-being</th>
<th>Relationship Well-being</th>
<th>Other Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual income (7)</td>
<td>Self-esteem (10)</td>
<td>Parenting skills (6)</td>
<td>Formal institutional environment</td>
</tr>
<tr>
<td>Debt (1)</td>
<td>Life empowerment</td>
<td>Violence at home (5)</td>
<td>• Environmental quality of life (13)</td>
</tr>
<tr>
<td>Income stability (3)</td>
<td>Work empowerment (11)</td>
<td>Violence in the community (5)</td>
<td>Household income (3)</td>
</tr>
<tr>
<td>Savings (1)</td>
<td>Self-efficacy (10)</td>
<td>Community status (1)</td>
<td>Number of household earners (3)</td>
</tr>
<tr>
<td>Economic shock/instability (3)</td>
<td>Skills and knowledge</td>
<td>Help from external organizations (1)</td>
<td>Quality of route (6)</td>
</tr>
<tr>
<td></td>
<td>• Communication (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sales skills (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL: 15</td>
<td>TOTAL: 48</td>
<td>TOTAL: 18</td>
<td>TOTAL: 48</td>
</tr>
</tbody>
</table>

**BASELINE SURVEY TOTAL: 121 + 4 qualitative questions = 125**

**ENDLINE SURVEY TOTAL: 108 + 6 qualitative questions = 114**

- Face-to-face paper based surveys requiring less than one hour of the respondent’s time
- Strong qualitative section included to learn about their experience at Semilla
- Targeted questions towards persons who left Semilla as well as for those who have been with Semilla for more than one year
Key activities: Pretest phase

I. Field visit
1. Train interviewers on cognitive interview techniques
2. Conduct cognitive interviews with the treatment and comparison group
3. Meet with key partners to discuss logistics of data collection
4. Debrief after each day of cognitive interviews and discuss how to adjust survey for the next day

II. Survey refinement
1. Summarize and translate findings from the cognitive interviews
2. Analyze results of cognitive interviews
3. Update research design based on the pretest findings
4. Revise survey and protocols based on results

Why conduct a pretest?
1. Test whether both the treatment and comparison groups understand and can respond to questions
2. Adapt the survey question text to ensure the target population interprets the questions as they were intended
3. Test order of survey sections
Key activities: Pilot phase

Preparations
1. Translate refined survey; Strengthen informed consent form after independent body review (e.g. IRB)
2. Identify potential data collection processes
3. Organize pilot and survey implementation logistics
4. Introduce data collection partner to objectives of the pilot and overall study

Pilot
1. Train interviewers
2. Conduct interviews with treatment and comparison groups. Assess ability to find comparison group.
3. Test survey implementation logistics, data collection process and incentives, and protocols
4. Debrief after each day of interviews and discuss how to adjust survey for the next day

Survey refinement
1. Third party data collection agency records and translates data from pilot
2. Calculate and analyze data from pilot
3. Update research design based on pilot results
4. Revise survey, recruitment strategies and protocols e.g. collecting any variables directly from the organization

Why conduct a pilot?
1. Test updated survey in its entirety with the treatment and comparison groups while also testing the process
2. Dry run for all parties involved (i.e. interviewers, third party, and organization being assessed) before actual baseline begins
Baseline, endline and support activities

I. Baseline activities
   1. Train third party data collection agency interviewers through classroom training and role-play
   2. Oversee first 2 days of interviews for both treatment and comparison groups
   3. Manage interview locations, size of interviewer team and logistics
   4. Non-coercive thank you gifts along with hotline number provided to all respondents

II. Endline activities
   1. Revise survey for endline (we added on additional qualitative questions)
   2. All individuals interviewed at baseline contacted at endline (contacted at least 3 times)
   3. Manage interview schedule, size of interviewer team, interview locations and logistics
   4. Non-coercive thank you gifts given to all respondents

III. Continuous support during baseline and endline
   1. Continuous support to third party data collection agency through weekly calls and emails
   2. Review data on a weekly basis (e.g. compare the treatment group to the comparison group)
   3. Track missing data on a weekly basis as well as retention numbers for the treatment and comparison groups
   4. Manage interviewer and data security
Common challenges faced in quantitative research

- Sample size is too small
- Program is not evaluation ready
- Lack of comparability between treatment and comparison groups
- Ethical problems
- Interviewer quality
- Time constraints
- Budget constraints
- Working in the local context
- Inaccurate data (misclassification bias)
- Mismatch between the research question and the data you actually collect

The key takeaway from the Impact Assessment Workshop will be to develop a customized Strategy Analysis and Performance Analysis action plan for your organization that tackles these challenges
Objectives

- Assessment of the socioeconomic impacts of the MCC model at 3 level:
  - farmers/individuals
  - household/farm level
  - community and village level
- Identify and characterize MCC models to improve the project and its roll out

Objectives

- Studies will be based on Egypt study protocol (Cirad). Assessment of the socioeconomic impacts of the MCC model at 3 level:
  - farmers/individuals
  - household/farm level
  - community and village level
- Following a common protocol for Egypt, Ciater and Merapi will give a calliberated comparison.
Bien vieillir  
(France)

Objectives

- Measure the action and impacts of physical activities on ageing people autonomy in elderly homes.
- Connect ecosystem project France and Spain to a broader study done at European level named "HAPPIER"

Pepenadores  
(Mexico)

Objectives

- Multidimensional outcomes:
  - Relational capabilities
  - Material poverty index
- One-dimensional outcomes:
  - Pepenadores life satisfaction - health status - addictions
  - Vulnerability at work
  - Formalization of employment, including social security, bank accounts and access to social programs
  - Financial empowerment
Involve community as much as possible in the definition of the impact criteria.

Start your project design with impact expectation.

Fix the limit of the impact perimeter.

Challenge impact results regarding real systemic change.

Dare to communicate on the failure:
  • Learnings are as important as the impact

STAY HUMBLE
Questions?
Contact information

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Sandra Draheim: draheims@umich.edu or 734-615-7319

Link to Webinar Series: http://wdi.umich.edu/research/bop/webinar2014

Link to Workshop Registration – Space is Limited http://bopworkshop.com/registration/
References

• London, T. Making better investments at the base of the pyramid. Harvard Business Review. 2009. 87: 106-113
• Semilla Reset. Danone Ecosystem Fund. Carlos Cruz: With Semilla, we are starting a social development constellation. Down to Earth. http://goo.gl/QuVHdz
• The Semilla Project. Down to Earth. http://goo.gl/Nstr3B
• IDRE. What does Cronbach's alpha mean? http://goo.gl/EE2xIR.UCLA.
<table>
<thead>
<tr>
<th>Type</th>
<th>Pros</th>
<th>Cons</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>• Lower cost as surveys can be conducted in open air</td>
<td>• Other community members can possibly hear sensitive information about respondent such as income, or domestic abuse</td>
<td>• May need to work with local community to determine appropriate location</td>
</tr>
<tr>
<td>Secluded public place</td>
<td>• Fewer onlookers (e.g. community and family)</td>
<td>• Requires more resources including infrastructure or personnel to manage onlookers</td>
<td>• Could use a school or another building with multiple rooms</td>
</tr>
<tr>
<td>Home</td>
<td>• More controlled environment</td>
<td>• Other family members may listen in and influence responses</td>
<td>• Follow-up interviews could be more effective as it would be easier to find participants</td>
</tr>
</tbody>
</table>
# Estimated timeframe for a quick study (less expensive)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic assessment</td>
<td>Month 1</td>
</tr>
<tr>
<td>Research design, sample selection and sample size</td>
<td>Month 2</td>
</tr>
<tr>
<td>Survey development</td>
<td>Months 3-4</td>
</tr>
<tr>
<td>Baseline data collection</td>
<td>Months 3-4</td>
</tr>
<tr>
<td>Lull period between data collection</td>
<td>Months 9-10</td>
</tr>
<tr>
<td>Endline data collection</td>
<td>Months 9-10</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Month 11</td>
</tr>
<tr>
<td>Reporting</td>
<td>Month 12</td>
</tr>
</tbody>
</table>
### Estimated timeframe for a longer study (more expensive)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic assessment</td>
<td>Month 1-3</td>
</tr>
<tr>
<td>Research design, sample selection and sample size</td>
<td>Month 4-6</td>
</tr>
<tr>
<td>Survey development</td>
<td>Months 7-10</td>
</tr>
<tr>
<td>Baseline data collection</td>
<td></td>
</tr>
<tr>
<td>Lull period between data collection if endline does not overlap with baseline</td>
<td></td>
</tr>
<tr>
<td>Endline data collection</td>
<td>Months 11-14</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Month 15-16</td>
</tr>
<tr>
<td>Reporting</td>
<td>Month 17-18</td>
</tr>
</tbody>
</table>
### Summary of research design

<table>
<thead>
<tr>
<th>Cost</th>
<th>Type of Research Design</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least expensive</td>
<td>Cross-sectional - one point in time</td>
<td>Easy to implement. Good for establishing baseline knowledge</td>
<td>Can’t observe change over time</td>
</tr>
<tr>
<td>Least expensive</td>
<td>Retrospective (cross-sectional) - asking people about what they remember</td>
<td>“Time on the cheap”. Good for establishing baseline knowledge and for getting a sense of how phenomena play out over time.</td>
<td>Participants may not accurately remember what occurred or how they were feeling at a specific time</td>
</tr>
<tr>
<td>More expensive</td>
<td>Prospective longitudinal – measurements at different time points.</td>
<td>Can observe changes over time</td>
<td>Time consuming</td>
</tr>
<tr>
<td>Most expensive</td>
<td>Randomized longitudinal – compares groups which are randomly assigned to “treatment” and “control”</td>
<td>Strongest inferences about causality. Minimizes bias.</td>
<td>May not be feasible or acceptable to stakeholders</td>
</tr>
<tr>
<td>Most expensive</td>
<td>Non-randomized longitudinal – compares groups (generally self-selected)</td>
<td>May be more acceptable to program or stakeholders.</td>
<td>Weaker inferences about causality. Need to think carefully about statistical and design controls</td>
</tr>
</tbody>
</table>
Power calculation: an example

Power Calculation

Sample size per group vs. effect size

alpha = .05, power = .9
Annex – slides applicable to Semilla
Visual aid in our survey
Assessing survey reliability from the pilot phase

Why test this measure in the pilot?
1. Cronbach’s alpha is used to estimate the reliability of a psychometric measure and the intercorrelations between the measure’s individual items. Here we ask the question: “Are these items measuring the same construct?”

In our survey, 9 questions are made up of multiple items or sub-questions. Their Cronbach’s alpha ranges from 0.65 (above acceptable) – 0.92 (excellent)

Cronbach's Alpha

Pilot sample consisted of
#new salesperson: 10
#current salesperson: 3
#ex-salespersons: 2
#comp. group: 15
Total: 30
Assessing variation in responses from the pilot phase

We looked carefully at the measures and there seems to be a fair and reasonable amount of variation in respondent’s answers to survey questions.

Why is variation in responses important?
1. If you keep getting the same answer or high responses from all respondents, this may indicate that respondents do not understand the question or are not actually listening to the questions that are being asked.

Sample consisted of
#new salesperson: 10
#current salesperson: 3
#ex-salespersons: 2
#comp. group: 15
Total: 30
Using natural experiments in your study

**Track ex-Salespersons**
1. Tracking ex-salespersons (salespersons who leave Semilla) will help us better understand why they left Semilla

**Track long-term**
1. Interviewing long-term salespersons (who have stayed with Semilla for >1 year) allows us to understand why they choose to stay with Semilla

**Track new model**
1. Interviewing salespersons in new model that Semilla is piloting allows us to compare different models