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Joint work with L. Abramovsky, M. Lührmann, A. OkoWilliams, H. Olorenshaw, F. Oteiza and J.P. Rud

Market-based sanitation in Nigeria

This study was funded by the Gates Foundation and CPP @TheIFS
Alongside CLTS, WaterAid Nigeria implemented a market-based approach (SanMark) to increase sanitation coverage in Ekiti and Enugu.
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SanMark was implemented in 3 Phases:

1. **Product design and testing**
   - Demand and Supply Deep-Dive
   - Development of three Water Easy Toilet (WET) product types
   - Sales and Distribution testing, consumer demand testing
Alongside CLTS, WaterAid Nigeria implemented a market-based approach (SanMark) to increase sanitation coverage in Ekiti and Enugu.

SanMark was implemented in 3 Phases:
1. **Product design and testing**
2. **Businesses engagement**
   - Business training and construction demonstrations
   - Access to WET moulds and plastic pan component
Alongside CLTS, WaterAid Nigeria implemented a market-based approach (SanMark) to increasing sanitation coverage in Ekiti and Enugu

SanMark was implemented in 3 Phases:
1. Product design and testing
2. Businesses engagement
3. Community engagement
   - Door-to-door sales agents
   - Community-level activities
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SanMark was implemented in 3 Phases:
1. Product design and testing
2. Businesses engagement
3. Community engagement

<table>
<thead>
<tr>
<th>Year</th>
<th>Intervention</th>
<th>CLTS Surveys</th>
<th>SM Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Baseline survey</td>
<td>8</td>
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<tr>
<td>2015</td>
<td>CLTS</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>2016</td>
<td>FU 1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>FU 2</td>
<td>32</td>
<td>15</td>
</tr>
<tr>
<td>2018</td>
<td>FU 3</td>
<td>9</td>
<td></td>
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</tbody>
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Intervention period covered 2 key sales periods (Christmas time).
Alongside CLTS, WaterAid Nigeria implemented a market-based approach (SanMark) to increasing sanitation coverage in Ekiti and Enugu.

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1. Product design and testing
2. Businesses engagement
3. Community engagement

Focus of impact evaluation

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<th>Product Design and Testing</th>
<th>Business Engagement</th>
<th>Community Engagement</th>
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<td>FU 3 CLTS: 32 SM2: 15 SM3: 8</td>
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Intervention period covered 2 key sales periods (Christmas time)
Evaluation Design

- Cluster Randomized Control Trial:
  - Phase 3 (Community engagement) evaluated in line with CLTS approach (cross-randomization): 247 rural community clusters randomly allocated to SM and Control (4,600+ households)
Evaluation Design

- **Cluster Randomized Control Trial:**
  - Phase 3 (Community engagement) evaluated in line with CLTS approach (cross-randomization): 247 rural community clusters randomly allocated to SM and Control (4,600+ households)
  - **Phase 2 (Businesses)** also randomized to SM and Control to assess degree of technology adoption.

**Ekiti**
SM (Phase 2) targeted to 44 businesses (randomly chosen among a group of 95)

**Enugu**
SM (Phase 2) targeted to 16 businesses (randomly chosen among a group of 34)
Key findings: Businesses

1. **Businesses responded to the intervention:**
   - Overall increase in awareness: 94% of SanMark businesses are aware of WET toilet after 15 months (data collection FU3) and 20% of SanMark businesses offered the product.
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Key findings: Businesses

1. Businesses responded to the intervention:
   - Overall increase in awareness: 94% of SanMark businesses are aware of WET toilet after 15 months (data collection FU3) and 20% of SanMark businesses offered the product.
   - SanMark businesses saw an increase in WET sales
   - The SanMark intervention made businesses significantly more likely to engage in the sanitation market (defined as having a proportion of revenues generated from toilet sales).
Key findings: D2D agents

1. Businesses responded to the intervention;
2. Door-to-door (D2D) sales agents started operations:
   - D2D Agents were engaged in sales, and their engagement was important: the number of sales made by D2D agents represents roughly 50% of all WET sales
1. Businesses responded to the intervention;
2. Door-to-door (D2D) sales agents started operations;
3. Although the supply was activated by SanMark, we do not find a significant shift in toilet ownership at the household level due to the intervention.
4. We do not find SanMark to be more effective in communities where CLTS was conducted previously.
1. Was the research done at the right time?
   Timing of last survey
   Comparing to successful other SanMark interventions:

![Graph: Time to scale for MBS interventions](image1)

![Graph: Trend of toilet sales for selected interventions](image2)

- **Start of business engagement**
- **Endline survey**
1. **Was the research done at the right time?**

   **Timing of last survey**
   
   Comparing to successful other SanMark interventions:
   
   - Possible that impacts to be expected at later stage.
   
   **2 Caveats:**
   
   1. Analysis of pilot businesses, where SanMark was introduced 9 months earlier, does not suggest that uptake would have been higher 9 months later (they also did not increase their sales significantly).
   
   2. Analysed case studies included in previous graph received continued financial support to implementers.
Reflections

1. Was the research done at the right time?
   - Timing of last survey
   - Timing of research more generally:
     - Challenging because: SanMark evaluation of an intervention, basically still in testing and trial phase (despite pilot with some businesses) (+ in parallel with CLTS impact evaluation)

2. Was the research design appropriate?
   - Ideally WaterAid would have liked to foster `star’ businesses, and ‘let them run loose’, i.e. offer and sell products where they seem fit.
   ➔ Research constrained the former, allowed the latter.
1. **Households liquidity constraints seem important:**
   - Households report liquidity constraints as main reason for not owning a toilet:

   ![](chart1.png)

<table>
<thead>
<tr>
<th>Share of responses (%)</th>
<th>Control</th>
<th>CLTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too expensive</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Can't afford it</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>No space/rented house</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Door-to-door sales agents report it as main issue:

![](chart2.png)

- Already have functioning toilet: 90%
- Can't afford WET toilets: 10%
- Not enough information/understanding: 0%
- Other: 0%
Learnings for intervention design in Nigeria

1. Households liquidity constraints seem important
2. D2D Sales agents likely not sufficiently incentivized under current intervention design
   - Only 52% of agents were considered active at the time of FU3.
   - Although agents were paid a commission for the WET sales they facilitated, their effective wage was low.
   - Most agents do not rely on this as their primary income source, which may explain the high rate of inactivity
THANK YOU!!!!

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