Learning with the Toolmakers
Using Systemic M&E Tools in Feed The Future
Uganda: Network Mapping
Tuesday, July 14, 2015, 9:30 AM EDT

Leanne Rasmussen  Eric Derks  Lucho Osorio
A few take-aways from the first webinar

- Patterns of behaviour and relationships
- Action – reaction
- Learning, experimentation, adaptation
- Good questions
Systemic M&E: Network Analysis
• Recap
• Why Network Analysis
• What we expect it to show
• Methodology
• Various Metrics
• Implications for the project
Theory of Change and Intervention Strategy

Facilitative Interventions

Systemic Change

Ag-Inputs Firms

Basic trading, arms-length relations, prevalence of counterfeits

Low input use, often misapplied

Customer-oriented growth strategies

Proper/ higher use of quality inputs

High yields & lower production costs

Impacts

Low yields & high production costs
Intervention Scheme

GAPS
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<tr>
<th>Intervention Scheme</th>
<th>M&amp;E Scheme Components</th>
<th>Performance Mgmt</th>
<th>Results Assessment</th>
<th>Attribution Assessment</th>
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<td>Short-term</td>
<td>Medium-term</td>
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Transactional Network Analysis: Agro-Inputs

Network structure:
• Changes over time
• Differences between businesses & locations

Different patterns of behavior

"Collect data first...investigate later"

Find the differences

See the needle move

Suppliers/Importers:
seed, CPP, fertilizers

Wholesalers

Retailers
**Changes we expected to see in network structures?**

Sustainability (durability) vs. Diversity + Interconnectivity

- **Window of Viability**
  - Greater efficiency
  - Increasing brittleness
  - Greater resilience
  - Increasing stagnation

**Changes we expected to see:**
- Fewer actors
- More specialization (esp. functions)
- More integration
- More cooperative relationships

**Other expected changes:**
- Growth
- Fewer stock-outs

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Data collection process...

Interviews with 250+ wholesalers in 26 district town centres

Who did you buy from? (Suppliers)
Strongest relationships, technical info

Who did you sell to? (Retailers)
Strongest relationships, technical info
Structures of social networks vs. transactional networks...

SNA: many connections in many directions, “web”

TNA: Direction of product flows; “hub and spoke”
Metric 1: Number of actors in the distribution chain

- **Suppliers**: 114 Kampala/Kenya

- **Wholesalers**: 300 26 districts

- **Rural retailers**: 1232+ from wholesalers

- At least 30 newly mentioned in second season; high rate of new entry

- No evidence yet of any businesses exiting market; anyone can trade in agro-inputs

- Many more who buy directly from Kampala
Metric 2: Percent of relationships that are rated highly

Percent of suppliers that wholesalers regularly relied on for product knowledge:

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<th>1st season</th>
<th>2nd season</th>
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<tbody>
<tr>
<td>Target firms</td>
<td>21.8%</td>
<td>41.0%</td>
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<tr>
<td>Non-target firms</td>
<td>32.4%</td>
<td>28.4%</td>
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Percent of their suppliers that wholesalers had a ‘strong’ relationship with:

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<tr>
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<th>1st season</th>
<th>2nd season</th>
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</thead>
<tbody>
<tr>
<td>Target firms</td>
<td>44.7%</td>
<td>37.0%</td>
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<tr>
<td>Non-target firms</td>
<td>46.2%</td>
<td>37.3%</td>
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First season 2014: 53 target firms and 165 non-target firms; Second season 2014: 45 target firms and 196 non-target firms

To answer, Why? Hypotheses and investigations....

“I started asking for it from suppliers.”

“The supplier started doing trainings.”

General seasonal trend? Confirm after next data collection.
**Metric 3: “Churn rate” of relationships**

Transaction relationships between suppliers and wholesalers

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<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Total number transactional relationships between suppliers and wholesalers</td>
<td><strong>1510</strong></td>
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<tr>
<td>Number of relationships that were consistent for Season 1 and Season 2</td>
<td><strong>833 (55%)</strong></td>
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<tr>
<td>Number of relationships that were new for Season 2</td>
<td><strong>677 (45%)</strong></td>
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**Assumption:** as the system improves, the # or % of consistent connections will go up.
Investigation: Why do wholesalers add or drop suppliers?

Top reasons to add:
- New product/company came on the market
- Products now available/back in stock
- Products now demanded by customers
- Company now delivers

Top reasons to drop:
- Stopped delivering/do not deliver
- Products unavailable/out of stock
- Products not demanded by customers
- Company raised prices

Or: “Oops, we forgot to mention them…”

Implications?
Relationships are about buying cheap and easy, and selling quickly
Lack of records means wholesalers don’t monitor relationships well
In Sum: What has network analysis done for us?

Gives us **numbers** to tell us how the system is changing.
- Less about making graphics, more about comparing metrics over time.
- **Pace** and **direction** of change in the system.

In mid-term project assessment; network data showed expected changes are not happening; need to consider new options became apparent.
- Network structure tells us that incentives are stacked against enterprise-level change, due to continued over-crowding and nature of relationships.
- Competitive pressures for poor performers to exit is not materializing.
- How else can the system get bad businesses to exit?
- Pointing us to new areas of intervention.
Thank you!

Upcoming webinar:
Using Systemic M&E Tools in Feed The Future Uganda: Sensemaker ®
July 28, 2015, 9:30 AM EDT

Previous webinar:
Using Systemic M&E Tools in Feed The Future Uganda
June 26, 2015, 9:30 AM EDT

Learn more here: