Finaccess Analysis and Insights for Global Development

Finaccess Datafest 2020
Outline

I. About Fraym
II. Finaccess Analysis and Insights for Global Development
ABOUT || HOW IT WORKS

ACQUIRE DATA
- Geo-tagged household surveys
- Satellite imagery
- Partner datasets

HARMONIZE DATA
- Validate
- Clean
- Geospatially enable

MACHINE LEARNING
- Proprietary algorithms
- Human-centric QA/QC
- Automation

GEOSPATIAL INSIGHT
- Predictive modeling
- API enabled
- Analytic services
- Front-end tools
ABOUT CUSTOMERS AND PARTNERS

TPG
SANOFI
WORLD BANK
THE ABRAAJ GROUP
Unilever
IFC
Safaricom
JAVA HOUSE
US AID
Sterling Bank
CDC
United Nations Economic Commission for Africa
mastercard foundation
SHELL FOUNDATION
ONE
Gavi
RTI International
Investec
CREATIVE
QED GROUP
CPCS
Yalelo
ESRI
mobisol
Kupanda capital
Harith
NoMAP
TERANGA GOLD CORPORATION
Nithio
greenlight planet
Mouka
ODYSSEY
Kettering Health Network
I. Commercial
II. Renewable Energy
III. Health
FINANCIAL PROFILE OF RURAL FARMER
MERU, KENYA

- Average household size: 4.2
- Most common banks: Equity Bank
- 42% completed primary school
- 13% have a loan with a financial service provider
- 62% literacy rate
- 66% uses mobile finance
- 36% has a bank account
Fraym used spending, consumption, and demographics data to construct a profile of the retailers’ ideal customer, that we then map down to 1x1 km.

### Primary customers

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>232,000 households (3%)</td>
</tr>
<tr>
<td>Household spending (monthly):</td>
<td>$1,100</td>
</tr>
<tr>
<td>Eating out spending (monthly):</td>
<td>$63</td>
</tr>
<tr>
<td>Rent (monthly):</td>
<td>$97</td>
</tr>
<tr>
<td>Bank Account ownership</td>
<td>80%</td>
</tr>
<tr>
<td>Telecommunication spending (monthly):</td>
<td>$52</td>
</tr>
</tbody>
</table>

1. Primary target households allocate roughly 6 percent of their monthly household spending on eating out.

2. They are **independent and mobile**, with roughly 80 percent of these households with a car and 33 percent with a motorbike.

3. They are **well connected** with ubiquitous cell phone ownership and 26 percent with computers.

4. The majority are **homeowners and own appliances like refrigerators and televisions**.

### Secondary customers

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>570,000 households (7%)</td>
</tr>
<tr>
<td>Household spending (monthly):</td>
<td>$510</td>
</tr>
<tr>
<td>Eating out spending (monthly):</td>
<td>$37</td>
</tr>
<tr>
<td>Rent (monthly):</td>
<td>$57</td>
</tr>
<tr>
<td>Bank Account ownership</td>
<td>25%</td>
</tr>
<tr>
<td>Telecommunication spending (monthly):</td>
<td>$31</td>
</tr>
</tbody>
</table>

1. Secondary target households spend nearly half as much eating out as primary households.

2. Secondary consumers are **aspiring for luxury**, with a **higher proportion** of their monthly spending to eating out than Primary.

3. They **value entertainment** – more than half own televisions and most own radios.

4. Secondary households are almost as likely to be urban or rural and have significantly **lower ownership rates of cars and refrigerators**.
Fraym then uses this data to pinpoint specific neighborhoods with high concentrations of target consumers—illustrating ideal new store locations.

**Note:** Each grid represents the number of ABC1 consumers in a 1x1 km² area.

<table>
<thead>
<tr>
<th>Buruburu Phase IV</th>
<th>Population: 22,789</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage ABC1 consumers: 91%</td>
<td></td>
</tr>
<tr>
<td>Proportion watching TV regularly: 79%</td>
<td></td>
</tr>
<tr>
<td>Percentage with a secondary education: 54%</td>
<td></td>
</tr>
<tr>
<td>Percentage with a bank account: 83%</td>
<td></td>
</tr>
</tbody>
</table>
Then Fraym uses this data to pinpoint specific neighborhoods with high concentrations of target consumers—illustrating ideal new store locations.

Note: Each grid represents a 3x3 km² area, which has at least 5,000 people living in the client’s target household.
Source: Fraym
Fraym worked with a global development agencies to understand financial inclusion and consumer credit for investment. To do so, Fraym built unique urban and rural profiles and mapped hotspots of target consumers across the country.

### CONSUMER MARKET SIZING | FINANCIAL SERVICES ASSESMENT

<table>
<thead>
<tr>
<th>Location</th>
<th>% of People with Loans</th>
<th>Number of People with Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eldoret</td>
<td>48%</td>
<td>0.2 million</td>
</tr>
<tr>
<td>Nakuru</td>
<td>37%</td>
<td>0.1 million</td>
</tr>
<tr>
<td>Nairobi</td>
<td>37%</td>
<td>0.8 million</td>
</tr>
<tr>
<td>Mombasa</td>
<td>23%</td>
<td>0.2 million</td>
</tr>
</tbody>
</table>

**Source:** Fraym  
**Note:** Each grid represents 1 square kilometer with at least 100 households with loans
Combined with mapping and hyper-local capabilities, Fraym provides international companies with macroeconomic and market opportunity analysis quickly and efficiently across Africa.

- **Ethiopia**
  - Population: 102.4 Mn
  - C1C2D consumers: 14.0 Mn
  - 2017 GDP per capita: $770

- **Kenya**
  - Population: 48.5 Mn
  - C1C2D consumers: 16.0 Mn
  - 2017 GDP per capita: $1,500

- **Tanzania**
  - Population: 56 Mn
  - C1C2D consumers: 17.4 Mn
  - 2017 GDP per capita: $930

- **Zimbabwe**
  - Population: 16 Mn
  - C1C2D consumers: 6.2 Mn
  - 2017 GDP per capita: $1,100
Example: C2D consumers in Kenya
Fraym defines consumer with specific livelihood categories—for example, the lower-middle “C2D” consumer represents a critical target demographic for cookstove companies. Fraym can works with clean cookstove companies to understand their target customers and inform about structuring payment options and methods.

Kenya Characteristics

Population 50,950,879
C2D Consumers* 27%
Advanced cook fuel 12%
Cook indoors 93%
Bank accounts: 53%
Literacy 78%

Proportion of C2D households in Kenya

*ABC Classification segments households based upon asset ownership and educational level. The results are then aggregated into five categories (A/B, C1, C2, D, E)
For COVID-19 response, Fraym produced well over 200 data layers spanning 10 countries inside of two weeks, which have been delivered to over 40 governments and organizations.

**Socio-Economic Vulnerability**

<table>
<thead>
<tr>
<th>Component</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-economic status</td>
<td>Not employed outside of farming</td>
</tr>
<tr>
<td></td>
<td>Hectares of farmland owned by household</td>
</tr>
<tr>
<td></td>
<td>Number of livestock owned by household</td>
</tr>
<tr>
<td></td>
<td>Educational attainment of household head</td>
</tr>
<tr>
<td>Housing type</td>
<td>Material of household roof</td>
</tr>
<tr>
<td></td>
<td>Material of household walls</td>
</tr>
<tr>
<td></td>
<td>Material of household floors</td>
</tr>
<tr>
<td>Food security</td>
<td>Child wasting</td>
</tr>
<tr>
<td></td>
<td>Not having enough food in the household at least once in past 7 days</td>
</tr>
<tr>
<td>Financial inclusion</td>
<td>At least one household member has a bank account</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>Household with physical, sexual, or emotional abuse of women</td>
</tr>
</tbody>
</table>

Source: Fraym