Spotlight on Rural Supply:

Critical factors to create successful mobile money agents.

By Sarah Zhou and Aakash Sethi
70% OF GLOBAL POOR LIVE IN RURAL AREAS
BASIC GEOGRAPHY: Mali and Chad
Background on Mali and Chad

In contrast with other East African countries, these countries are more rural.

Refugee Camp in Chad

Children at play in Mali
## Chad, Mali, and Kenya Demographics Comparison

<table>
<thead>
<tr>
<th>Population Density (per sq. kilometer)</th>
<th>Rank In 2013 Human Development Index</th>
<th>Electric power consumption (kWh per capita)</th>
<th>Mobile Cellular Subscriptions (per 100 people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chad: 11</td>
<td>Chad: 184 (0.372)</td>
<td>Chad: --</td>
<td>Chad: 40</td>
</tr>
<tr>
<td>Mali: 14</td>
<td>Mali: 176 (0.407)</td>
<td>Mali: --</td>
<td>Mali: 39</td>
</tr>
</tbody>
</table>

Source: 2015 World Bank Indicators and 2013 Human Development Index
FIGURE 1

CAPTURED ADDRESSABLE MOBILE MONEY MARKET
(ACTIVE 90-DAY CUSTOMERS PER GSM CONNECTIONS)\(^9\)

ADVANCED MARKETS

RURAL MARKETS

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17%</td>
</tr>
</tbody>
</table>

\(^9\) Source: Data from the World Bank and GSMA Intelligence.
## TIGO CASH AND ORANGE MONEY AT A GLANCE

<table>
<thead>
<tr>
<th></th>
<th>TIGO CASH (CHAD)</th>
<th>ORANGE MONEY (MALI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Launch Date</strong></td>
<td><img src="calendar.png" alt="November 2012" /></td>
<td><img src="calendar.png" alt="May 2010" /></td>
</tr>
<tr>
<td><strong>Products Offered</strong></td>
<td>• Airtime top-up</td>
<td>• Airtime top-up</td>
</tr>
<tr>
<td></td>
<td>• P2P transfer (domestic)</td>
<td>• P2P transfer (domestic)</td>
</tr>
<tr>
<td></td>
<td>• Merchant payment</td>
<td>• Merchant payment</td>
</tr>
<tr>
<td></td>
<td>• Other bulk payment</td>
<td>• International remittances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bill payment</td>
</tr>
<tr>
<td><strong>Market Context</strong></td>
<td>Tigo Chad reached 8.5% GSM penetration in less than 10 months after launch, which was the fastest rate of penetration of all Millicom markets.</td>
<td>As of October 2014, the value processed by Orange Money was equivalent to more than 20% of Mali’s GDP.</td>
</tr>
</tbody>
</table>
TIGO CASH VS. ORANGE MONEY

% OF TOTAL POPULATION CONSIDERED RURAL\textsuperscript{15}

- TIGO: 78%
- ORANGE: 61%

% OF TOTAL AGENTS BASED IN RURAL AREAS\textsuperscript{16}

- TIGO: 34%
- ORANGE: 15%

% OF RURAL AGENTS CONSIDERED SUCCESSFUL\textsuperscript{17}

- TIGO: 10%
- ORANGE: 23%
HOW DO WE DEFINE RURAL?

DEFINE URBAN SETTLEMENTS BASED ON NIGHT LIGHTS

The mapping base is the Global Rural-Urban Mapping Project from the NASA Socio-Economic Data and Application Center. This project defines urban settlements based on lights at night.

CROSS-CHECK WITH UN CENSUS DATA

This NASA initial mapping is cross-checked and marginally modified based on the United Nations World Urbanization Prospects database.

DEFINE THE INFLUENCE CIRCLE OF EACH URBAN SETTLEMENT

From the centre of each urban settlement, a 5km radius circle (10km for capital city) is fixed. Within the circle, the area is urban, outside of it, the area is rural.

GEO-LOCALISE EACH BTS

Each BTS is geo-localised and assigned to an urban or rural area by assessing whether they are inside or outside an urban circle.

GEO-LOCALISE EACH AGENT

Each agent's MSISDN is connected to a main BTS based on the number of days present on the BTS and, if equal, based on the number of calls on that BTS.
MAIN INCOME IN RURAL AND URBAN AREAS, ACTUAL CASH FLOWS (%)

RURAL
- Self-Employment: 20%
- Casual: 13%
- Agriculture: 11%
- Regular: 18%
- Resources Received: 36%
- Non-Employment: 2%
- Other: 2%

URBAN
- Self-Employment: 41%
- Casual: 26%
- Agriculture: 5%
- Regular: 26%
- Resources Received: 26%
- Non-Employment: 0%
- Other: 2%
TOTAL RURAL AND URBAN MOBILE MONEY USAGE FOR TIGO CHAD, BY VOLUME AND VALUE (30-DAY)²⁶

RURAL, BY VOLUME
- CASH-IN: 29%
- AIRTIME TOP-UP: 30%
- CASH-OUT: 0%
- P2P TRANSFER: 3%
- MERCHANT PAYMENT: 65%

URBAN, BY VOLUME
- CASH-IN: 65%
- AIRTIME TOP-UP: 30%
- CASH-OUT: 7%
- P2P TRANSFER: 3%
- MERCHANT PAYMENT: 0%

RURAL, BY VALUE
- CASH-IN: 40%
- AIRTIME TOP-UP: 36%
- CASH-OUT: 4%
- P2P TRANSFER: 19%
- MERCHANT PAYMENT: 1%

URBAN, BY VALUE
- CASH-IN: 31%
- AIRTIME TOP-UP: 31%
- CASH-OUT: 35%
- P2P TRANSFER: 3%
- MERCHANT PAYMENT: 0%
ENABLERS OF SUCCESS IN MALI & CHAD

1. LOCATION MATTERS

**SHARE OF SUCCESSFUL RURAL AGENTS IN TABAKOTO VERSUS THE ENTIRE COUNTRY**

- **SUCCESSFUL**: 77% in Tabakoto, 23% in the entire country.
- **ACTIVE**: 8% in Tabakoto, 47% in the entire country.
- **DORMANT**: 15% in Tabakoto, 30% in the entire country.
ENABLERS OF SUCCESS IN MALI & CHAD

2. AGENT SELECTION AND ORGANIZATION

![Bar chart showing percentage of Orange Money agents in Mali offering SIM and airtime scratch cards in rural and urban areas.]

- Overall: 39%
- Rural active: 64%
- Rural successful: 64%
- Urban active: 43%
- Urban successful: 34%
2. AGENT SELECTION AND ORGANIZATION
ENABLERS OF SUCCESS IN MALI & CHAD

3. Use of Master Agents to Manage Liquidity

80% of rural agents say that master agents are important for their success

50% of rural agents say that master agents are their first POC for issues

Other Master Agent Success Factors

- Existing friendship with agents
- Master agent training
1. Balancing financial institutions for asset management with fractured supply chain
   a. Can MMS help create enough stability to slowly incorporate financial institutions?
   b. If an area is too fractured/unstable, how can we use mobile services to sustainably extend reach?

2. MMS are typically used for short-term, low-value money management. Would developing long-term MMS (investment, banking, etc.) help boost inclusion and sustainability of these services?

3. Minimizing underperforming/dormant agents

4. Unifying cash float accounts between agents?

5. Methods for determining the right number of agents?

6. What data sources would be valuable for determining agent success, getting insights into MMS usage, and population growth?