Geomarketing as a Marketing Planning Tool

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Bruno Marsili
Abstract

Telecom Italia Mobile (TIM) is a major wireless operator offering mobile communication services throughout Brazil. Each of our regions is unique and has different customer needs and competitive environments. GIS assures that important information such as the behavior of our potential customers and competitors per micro region can be visualized and analyzed.

This allow us to proactively anticipate our competitor’s actions and optimize our resources/network coverage to best meet regional demands and to be closer to our customers.

Our challenge is to implement an efficient enterprise GIS aligned with TIM's strategy. In order to reach this objective we are establishing the same analytical criteria for all regions and are using a unified geographic database. This will allow us to be consistent with our decision making process and will allow us to compare regional data in order to implement our regional/national marketing plans.
**Mobile Market in Brazil**

- **Area:** 8,498,293.97 km²
- **Population:** 184,184,227 inhabitants
- **State Divisions:** 27
- **GDP 2005:** US$ 796 billion
- **GDP Per Capita 2005:** US$ 4,321

**Mobile Customers:** 102.1 million

- **Prepaid:** 80.4%
- **Postpaid:** 19.6%

**Market share by operator:**
- **Vivo:** 28.4%
- **TIM:** 25.8%
- **Claro:** 24.1%
- **Oi:** 13.1%
- **Other operators:** 8.6%

*Source: IBGE (may06); Anatel (Mar/07)*

**Brazilian Demographic Characteristics Reinforces the Importance to Develop an Intelligence in Geomarketing**
### TIM Brazil Figures

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Employees</td>
<td>9.6 K</td>
</tr>
<tr>
<td>Outsourced Employees</td>
<td>36 K</td>
</tr>
<tr>
<td>Covered Cities (GSM/GPRS)</td>
<td>&gt; 2.4 K</td>
</tr>
<tr>
<td>Covered Cities (EDGE)</td>
<td>&gt; 400</td>
</tr>
<tr>
<td>Covered City Population</td>
<td>91%</td>
</tr>
<tr>
<td>Total Customer Base (March/2007)</td>
<td>26 Million</td>
</tr>
<tr>
<td>Market Share (March/2007)</td>
<td>25.8 %</td>
</tr>
<tr>
<td>Revenues (2006)</td>
<td>R$ 10.8 bilion</td>
</tr>
<tr>
<td>Ebitda margin over total net income (2006)</td>
<td>24.1%</td>
</tr>
</tbody>
</table>

**Source:** TIM Brazil Human Resources; Anatel (May/07); TIM Brazil Balance Sheet 07
TIM Brazil Geomarketing Project

A strategic tool to drive marketing decision process:

**Strategic Goals**

- “Act locally”: all regions of Brazil present different maturity stages and competitive environments.
- Optimize the allocation of resources: “surgical actions
- Alignment between the company national strategy and the regional tactical plans

**Geographical Analysis**

1. Identification of the peculiarities of the regional market through the visualization of the behavior of the micro region;
2. Geographic delimitation of the actions in accordance with the location/concentration of the clients, consumption potential, traffic, coverage, sales channels, etc.
3. Uniformization of the reading of the realities of the territories and analysis criteria through a unified geographic basis
Authors Information

Bruno Marsili
TIM Brasil
Marketing Intelligence Manager
bmarsili@timbrasil.com.br
+55 21 8113-1110

Rodrigo Brito
TIM Brasil
GIS
robrito@timbrasil.com.br
+55 21 8113-3669

Bruno Borics
TIM Brasil
GIS
bborics@timbrasil.com.br
+55 21 8113-0761
GIS Team in Brazil

7 distinct regional operations

Team:

2 dedicated people in Holding
1 to 2 people in each operation
### Evolution of work division

<table>
<thead>
<tr>
<th>Holding</th>
<th>Technical Specification</th>
<th>Implementation and data validation</th>
<th>Technical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-to-end studies</td>
<td>Pilot Studies</td>
<td>Pilot studies</td>
<td>Teams develop end-to-end studies to for all regions</td>
</tr>
</tbody>
</table>

| Regional Operations | Users of the studies | Replication of pilot studies with regional data | First original end-to-end studies for regional operations |

2005 2006 2007
Challenges

• **Demographic data quality:**
  - Brazilian census occurs only every 10 years;
  - Different data quality for each region;

• **Resistance of other departments to provide internal information;**

• **System Inputs:**
  - **Internal data format:**
    - eg. 1: Duque de Caxias city is written on internal systems as Duque de Caxias, D. Caxias, Caxias, but there is a Caxias city too;
    - eg. 2: It was found in internal systems 50 different ways to write São João do Meriti city.
• Search friendly users to whom provide our services;
• Internal selling of first results;
• As GIS has become reference for analysis, other departments started demanding specific studies;
• Current Status: as demand got bigger than our delivery capacity, we are selecting the more important jobs to work on.
Examples of conducted analysis

- Churn Rate and mix analysis – Rio de Janeiro
- Distribution Channel Analysis – João Pessoa
- Outdoor Media Location - Curitiba
Churn Rate Analysis – Rio de Janeiro

Taxa de Churn
- Até 21,4%
- entre 21,4% e 25,6%
- entre 25,6% e 30,2%
- entre 30,2% e 58,2%
Churn Mix Analysis – Rio de Janeiro

motivo predominante do churn
- Fraude
- Inadimplência
- Voluntário
Distribution Channel Analysis – João Pessoa
Outdoor Media Location – Curitiba