Implementing Geomarketing as a Strategic Planning Tool

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Authors: Rafael Marquez and Rodrigo Brito
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 allows 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: 90.5 million
Prepaid: 80.5% (72.9 million)
Postpaid: 19.4% (17.6 million)

Market share by operator:
- Vivo: 33.0%
- TIM: 23.6%
- Claro: 22.2%
- Oi: 12.8%
- Other operators: 8.4%

Source: IBGE; Anatel (May/06)

BRAZILIAN DEMOGRAPHIC CHARACTERISTICS REINFORCES THE IMPORTANCE TO DEVELOP AN INTELLIGENCE IN GEOMARKETING
# Evolution of TIM in Brazil

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Operators</th>
<th>Market Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>• 1st Auction: Beginning of the Competition</td>
<td>• 2 operators per region</td>
<td>• Inefficiency</td>
</tr>
<tr>
<td></td>
<td>• Launching of TIM on the Brazilian market: 3 distinct operators</td>
<td></td>
<td>• High Prices</td>
</tr>
<tr>
<td>2002</td>
<td>• 2nd Auction: Launching of 9 GSM operators</td>
<td>• 3 or 4 operators per region</td>
<td>• Low Quality</td>
</tr>
<tr>
<td></td>
<td>• Launching of TIM in new regions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 multi-regional GSM operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003/2006</td>
<td>• Market Consolidation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 5 Main Players:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TIM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vivo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Claro</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Oi</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Brasil Telecom</td>
<td></td>
<td></td>
</tr>
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</table>

**TIM Brazil**: the only mobile operator with a national footprint

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*Brazil map with regions marked.*
## TIM Brazil Figures

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Direct Employees</td>
<td>9.1 K</td>
</tr>
<tr>
<td>Outsourced Employees</td>
<td>36 K</td>
</tr>
<tr>
<td>Covered Cities (GSM/GPRS)</td>
<td>&gt; 2.3 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/2006)</td>
<td>21 Million</td>
</tr>
<tr>
<td>Market Share (March/2006)</td>
<td>23.6 %</td>
</tr>
<tr>
<td>Market Share GSM (Mar/2006)</td>
<td>37.0%</td>
</tr>
<tr>
<td>Ebitda (March/2006)</td>
<td>R$ 518.2 million</td>
</tr>
<tr>
<td>Ebitda margin over total net income</td>
<td>24.3%</td>
</tr>
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</table>

Source: TIM Brazil Human Resources; Anatel (May/06); TIM Brazil Balance Sheet 1Q06
TIM Brazil Geomarketing Project

A strategic tool to drive marketing decision process:

<table>
<thead>
<tr>
<th>Strategic Goals</th>
<th>Geographical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• “Act locally”: all regions of Brazil present different maturity stages and competitive environments.</td>
<td>(1) Identification of the peculiarities of the regional market through the visualization of the behavior of the micro region;</td>
</tr>
<tr>
<td>• Optimize the allocation of resources: “surgical actions”</td>
<td>(2) Geographic delimitation of the actions in accordance with the location/concentration of the clients, consumption potential, traffic, coverage, sales channels, etc.</td>
</tr>
<tr>
<td>• Alignment between the company national strategy and the regional tactical plans</td>
<td>(3) Uniformization of the reading of the realities of the territories and analysis criteria through a unified geographic basis</td>
</tr>
</tbody>
</table>
GIS Architecture in TIM Brazil

Desktop Application
- Edition and creation of data
- Analyses and studies
- Business Rules

Web Application
- Viewers
- Information Entry

Information Services

Data Services
- DW

Edition and creation of data
- Holding (cartographic bases, current spot, internal data)
- Operators (POS of the competition)

Analyses and studies
- Holding & Operators

Business Rules
- Holding & Operators

Viewers
- Holding & Operators

Holding

Remote access profile to TIM operators:
- consultation
- updating in simulation
- updating in production

Unique integrated and stored database on a server

Possibility of consultation on the web
Case Studies

Distribution Channel Analysis

Voice Traffic Analysis
Distribution Channel Analysis

TIM x Competitors
Households:  
- Very low concentration  
- Low concentration  
- Average concentration  
- High concentration

Voice Traffic  
- Low Traffic  
- Average Traffic  
- High Traffic

Porto Alegre, Downtown - Diagnostics:  
High concentration of direct channels was found, especially on Av. dos Andradas, showing an overlap of POS.
Distribution Channel Analysis
Voice Traffic Analysis

Mother’s Day Promotion Impacts on Customer Mobility
Traffic before the Promotion – Working Days

Legend
- Low
- Medium
- High

Back to Menu
Traffic before the Promotion – Saturdays
Traffic before the Promotion – Sundays

Legend
- Low
- Medium
- High

Before WDay
Before Saturday
Before Sunday
Currently Working Day
Currently Saturday
Currently Sunday

Traffic before the Promotion – Sundays
Traffic during the Promotion – Working Days

Legend
- Low
- Medium
- High

Before WDay
Before Saturday
Before Sunday
Currently Working Day
Currently Saturday
Currently Sunday

Before
Sunday
Currently
Saturday
Currently
Working Day
Back to Menu
Traffic during the Promotion – Saturdays

Legend
- Low
- Medium
- High

Back to Menu
Traffic during the Promotion – Sundays

Legend
- Low
- Medium
- High

Currently Working Day
Before Saturday
Before Sunday
Currently Saturday
Currently Sunday

Back to Menu
Appendixes
Coverage Information

TIM X COMPETITORS
### Relatório de População Coberta

<table>
<thead>
<tr>
<th>Regional</th>
<th>UF</th>
<th>DDD</th>
<th>Área SMC</th>
<th>População Total</th>
<th>População Urbana</th>
<th>% Pop Urb Cob (TIM)</th>
<th>Pop Urb Cob (Claro)</th>
<th>% Pop Urb Cob (Claro)</th>
<th>Pop Urb Cob (Oi)</th>
<th>% Pop Urb Cob (Oi)</th>
<th>Pop Urb Cob (CTBC)</th>
<th>% Pop Urb Cob (CTBC)</th>
<th>Pop Urb Cob (Telemig Celular)</th>
<th>% Pop Urb Cob (Telemig Celular)</th>
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**MG**

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**GenomaWeb**

- Exportar Relatório
Market Data Analysis

Social Classes and Industries Concentration
Customer Base Analysis

Top Clients Concentration
Technical Support Services Analysis

Distribution gap relatively to customer base
SUPPLIER ANALYSIS

- Municípios ok
- Municípios sem AT / PC – 1k a 5k
- Municípios sem AT / PC – 5k a 10k
- Municípios sem AT / PC – 10k a 100k
- Municípios sem AT – > 100k
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