- Branch monitoring and analytics
- Transitory Accounts
Itaú Unibanco projects

• Branch monitoring through KPIs and transaction monitoring
• Transitory Accounts
• Implementation considerations
  – Hiring a systems integrator
  – Effect on downstream systems
  – Behavioral changes
• Conclusions
Background

Who we are:

- The largest private financial conglomerate in the Southern Hemisphere;
- One of the Top 20 banks in the world with over US$ 50 billion market cap;
- Presence Abroad: business in 12 countries; diversified portfolio of products and services;
- Major provider of finance for the expansion of Brazilian companies;
- The best talent pool in the Brazilian financial system.

<table>
<thead>
<tr>
<th></th>
<th>1st Q/09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets (R$ million)</td>
<td>618,943</td>
</tr>
<tr>
<td>Stockholders` Equity (R$ million)</td>
<td>44,999</td>
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<tr>
<td>Assets Under Management (R$ million)</td>
<td>269,087</td>
</tr>
<tr>
<td>Employees (individuals)</td>
<td>106,210</td>
</tr>
<tr>
<td>Branches and CSBs (units)</td>
<td>4,895</td>
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<tr>
<td>ATMs (units)</td>
<td>30,801</td>
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</table>
### History of Numbers of Points of Service (*)

<table>
<thead>
<tr>
<th></th>
<th>Jun/07</th>
<th>Sep/07</th>
<th>Dec/07</th>
<th>Mar/08</th>
<th>Jun/08</th>
<th>Sep/08</th>
<th>Dec/08</th>
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<tbody>
<tr>
<td>ATM</td>
<td>30,663</td>
<td>30,602</td>
<td>30,852</td>
<td>30,928</td>
<td>30,979</td>
<td>30,984</td>
<td>30,909</td>
<td>30,801</td>
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<tr>
<td>Branches</td>
<td>1,049</td>
<td>1,051</td>
<td>1,057</td>
<td>1,034</td>
<td>1,025</td>
<td>997</td>
<td>999</td>
<td>986</td>
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<tr>
<td>Customer Service Branches (CSB)</td>
<td>3,625</td>
<td>3,638</td>
<td>3,716</td>
<td>3,734</td>
<td>3,766</td>
<td>3,815</td>
<td>3,906</td>
<td>3,909</td>
</tr>
<tr>
<td>Others**</td>
<td>2,381</td>
<td>2,631</td>
<td>2,715</td>
<td>2,786</td>
<td>2,796</td>
<td>2,880</td>
<td>2,865</td>
<td>2,880</td>
</tr>
</tbody>
</table>

Quantities
Background
Background

• Itaú Unibanco is the result of a recent merger (10 months old) of two large banks forming the 12th top largest worldwide financial institution
• 103,000 employees and 20 million accountholders
• Its Internal Audit now is reconfigured taking the best of each institution (350 internal auditors)
• Continuous audit has been elevated to report directly to the CEA (executive director)
• Pursuing the prior CA projects and initiating new ones
Branch audit and monitoring
Branch Monitoring

• Heuristics for 17 monitoring procedures that monitor about 1400 branches/units are being re-calculated

• Have retained IBM as the “systems integrator” for hardware expansion and systems implementation of continuous audit analytics
Unibanco – Some CA Program Features

• Automated monitoring of over 5 million customer accounts on a daily basis using 25 automated procedures to:
  – Detect errors
  – Deter inappropriate events & behaviors
  – Reduce or avoid financial losses
  – Help assure compliance with existing laws, policies, norms and procedures

• Examples of “low hanging fruit:”
  – Customer advances
  – Excess over credit limit
  – Returned checks
  – Federal tax payment cancellations
  – TED issuing (electronic money transfer)
Adiantamento a Depositantes (Advances)
Excesso sobre limite (Overdraft)
Monitoração

Cheques acolhidos devolvidos (Bounced Checks)
Estorno de Tributos (Federal taxes)
Transitory accounts

• About 10,000 general ledger accounts
• Unclear how many are really used as transitory
• Range a large number of business units
Transitory Accounts

- **Level 1**
  - Analytic review of all accounts

- **Level 2**
  - Monitoring of risky accounts at the mainframe level

- **Level 3**
  - Daily analytics on transactions and generic characteristics of high risk accounts
  - Generic filter to analyze daily transactions of particular accounts flagged in daily level 2 monitoring

- **Level 4 (future)**
  - Continuity equations and relationships
Conta 61930- TEDs Aplicações Financeiras (investments)- Transitórias

- 191 transactions in 41 days
- All transactions input by the Treasury dept.
- All debt transactions
- No multiple transactions
- Biggest amounts identified were

<table>
<thead>
<tr>
<th>Amount</th>
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<tr>
<td>7,000,000.00</td>
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<tr>
<td>2,700,000.00</td>
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<td>1,000,000.00</td>
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<td>980,000.00</td>
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<tr>
<td>597,519.14</td>
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<td>386,120.65</td>
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<td>148,885.67</td>
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<td>132,250.25</td>
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<tr>
<td>70,875.98</td>
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<tr>
<td>25,052.06</td>
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</table>
Conclusions

• In general terms the project is advancing at a larger scope, focusing on identifying risky behavior of employees (sales team)
• Prototyping is being performed by the Rutgers team
• Itaú Unibanco adapts the analytics to its environment and works on its implementation in an operational environment