HOW TO INTRODUCE CREDIT SCORING FOR MICROFINANCE LENDING

LiSim

September 2007

www.lisim.biz
## MFI’s Challenges to Use Credit Scoring

### Cultural Constraint

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change Resistance</td>
<td>• Scoring as a tool for challenging goals</td>
</tr>
<tr>
<td>• Lack of Development Vision</td>
<td>• Intensive Training for all related staff</td>
</tr>
<tr>
<td>• Scoring as a Threat</td>
<td></td>
</tr>
</tbody>
</table>

### Databases Availability

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not enough quantity and quality data bases</td>
<td>• Expert models</td>
</tr>
</tbody>
</table>

www.lisim.biz
MFI’s CHALLENGES TO USE CREDIT SCORING

Technological Resources

Challenge

• Not enough and specific technological resources for the microfinance market

Solution

• Technological tools may be adjusted from other massive segments

Key factor for a profitable portfolio at microfinance

www.lisim.biz
HOW DOES CREDIT SCORING AFFECT POLICIES

Policies Review

Scoring helps to validate aspects inside policies and improve all the approval process.

<table>
<thead>
<tr>
<th>Necessity</th>
<th>Avoid</th>
<th>To accept risky population and to miss target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation</td>
<td>Policies Target Population</td>
<td>High Risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Risk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Policies Population Target</th>
<th>Real Risk Profile</th>
<th>Policy Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejected Population</td>
<td>Low Risk</td>
<td>Wrong Policy</td>
</tr>
<tr>
<td></td>
<td>High Risk</td>
<td>Right Policy</td>
</tr>
<tr>
<td>Approved Population</td>
<td>Low Risk</td>
<td>Right Policy</td>
</tr>
<tr>
<td></td>
<td>High Risk</td>
<td>Wrong Policy</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Average Risk</td>
</tr>
</tbody>
</table>
How does credit scoring affect policies

**Policies**

One single characteristic at a time

- **A** = Approve
- **R** = Reject

**Scoring**

Multiples characteristics

<table>
<thead>
<tr>
<th>Range</th>
<th>score</th>
<th># PERS</th>
<th>% PERS</th>
<th>Total # PERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGH RISK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4000</td>
<td>43.48%</td>
<td>9200</td>
<td>2.47%</td>
</tr>
<tr>
<td>B</td>
<td>2500</td>
<td>36.76%</td>
<td>6800</td>
<td>1.82%</td>
</tr>
<tr>
<td>C</td>
<td>5800</td>
<td>33.72%</td>
<td>17200</td>
<td>4.61%</td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>10100</td>
<td>27.01%</td>
<td>37400</td>
<td>10.03%</td>
</tr>
<tr>
<td>E</td>
<td>9100</td>
<td>24.80%</td>
<td>36700</td>
<td>9.84%</td>
</tr>
<tr>
<td><strong>LOW RISK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>5200</td>
<td>13.33%</td>
<td>39000</td>
<td>10.46%</td>
</tr>
<tr>
<td>G</td>
<td>4500</td>
<td>10.47%</td>
<td>43000</td>
<td>11.53%</td>
</tr>
<tr>
<td><strong>LOW RISK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>2700</td>
<td>5.74%</td>
<td>47000</td>
<td>12.60%</td>
</tr>
<tr>
<td>I</td>
<td>1700</td>
<td>4.15%</td>
<td>41000</td>
<td>10.99%</td>
</tr>
<tr>
<td>J</td>
<td>770</td>
<td>1.73%</td>
<td>44500</td>
<td>11.93%</td>
</tr>
<tr>
<td>K</td>
<td>450</td>
<td>0.88%</td>
<td>51200</td>
<td>13.73%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46820</td>
<td>12.55%</td>
<td>373000</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

**High Risk = Rejection**

**Average / High = Disbursement with short term, low amount, high interest.**

**Average / Low = Disbursement with average/short term, average/low amount, average interest rate**

**Low Risk = No restrictions.**

*Scoring keeps only basic policies*

**Looks Right Clients**

To Current Products

www.lisim.biz

**Looks Right Products**

To Potential Clients
HOW DOES CREDIT SCORING AFFECT POLICIES

Approval Process (Scoring Evaluation methodology)

Traditional Process

Standard Evaluation

Scoring

Segmented Risk Evaluation

Start

First data collection (enough as to apply basic policies)

Basic and Bureau Policies application

High Risk (Automatically Rejection)

Average Risk?

Intensive Verification (Second Visit + Reference consulting)

Light Verification (Reference consulting)

Does the client fits the policies

Application Score Calculus

Match Verification?

Yes

No

Yes

No

Yes

No

Yes

No

End

Clients Database

Behavior Database

Notification and Disbursement

Clients Database

End

www.lisim.biz
CLIENTS RELATIONSHIP THROUGH SCORING

Approval Process:
Applications Models for new clients; "More and best new clients"

Collection Process:
Behavior models to segment population and apply differentiated strategies regarding payment probability.

CLIENT CYCLE

Provisions estimation:
Behavior models for an accurate expected loss estimation. (as included in BASEL II)

Renewal and Cross Sells Process:
Behavior Models to improve the renewal and cross sells process regarding risk and consumption tendencies

www.lisim.biz
SCORING SYSTEMS MAINTENANCE

Implementation Stage

It’s extremely important to validate integrally the right implementation model.

Monitoring Reports

- Data Quality
- Rejection Levels
- Scoring Impact
- Behavior Stability
- Scorecard Evaluation

Maintenance Process

A maintenance is required depending on an evaluation report alert

- An integral review of the current variables behavior
- An evaluation of additional variables for possible inclusion in the model.

www.lisim.biz
CONCLUSIONS

• Scoring implementation challenges have always alternatives of success.

• Scoring gets more attention to clients, due to it maximizes the approvals by reducing the policies and customizing the services offered to the client’s risk.

• Integral risk management through predictive CRM.

• The maintenance is important to guarantee the appropriate performance of the Score Card.
THANK YOU VERY MUCH FOR YOUR ATTENTION

For additional information, please do not hesitate to contact me:

Lilian Simbaqueba
LiSim C.E.O

lsimbaqueba@lisim.biz
Phone: 57 1 602 20 20
Address: Cll. 94 A No. 11 A – 39
Bogotá - Colombia
OUR COMPANY

LiSim ECUADOR
Av. La República 307 y Diego de Almagro Oficina 7B. Tel: 593-2-2529341/2550459 Quito

LiSim BOLIVIA
Calle Benito Juárez #48 Casa 5
La Florida
Tel (5912) 274 0753
La Paz

LiSim CHILE
Simón Bolívar 5917 M
Teléfono: (56 2) 2278118
Santiago de Chile

LiSim ARGENTINA
Reconquista 661 – Piso 4
C1003ABM
Tel (5411) 43156700
Buenos Aires

LiSim COLOMBIA
Calle 94 A No. 11A-39
Tel: 57(1) 6022020
Bogotá D.C. Colombia

LiSim MEXICO
S. De R.L. de C.V.
San Borja, 816-I. Colonia del Valle.
C.P. 03100 Teléfonos: (52 55) 5559-7437
México, D.F.