Credit Scoring: Data and Decisioning
What should scoring do for collections?

Tallyman Customer Partnership Conference:
Best Practice in Credit Management & Collections

Le Meridien Queen’s Hotel, Leeds,
Wednesday 19th June 2002

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SCOREPLUS
www.scoreplus.com

Tallyman Customer Partnership Conference
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Credit Scoring, Data and Decisioning
Structure of Presentation

ScorePlus

Data

Group Actions

Individual Actions

Scoring
What is ScorePlus?

Rigorous credit management
• Analytic base • Practical approach

Analysis
• Scorecards
• Bad debt models
• Profitability models

Consulting
• Strategy development
• Credit policy review
• Collections management

Training
• Scoring management
• Scorecard development
• Behavioural scoring

Software
• Call centre management
• Portfolio forecasting

Clients include:
Barclays Bank
Royal Bank of Scotland
The Standard Bank of South Africa

Halifax
Orange
Littlewoods
Credit Scoring, Data and Decisioning

ScorePlus

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Scoring
Scores structure data

- Scores consolidate existing data
- Focus on one aspect of customer behaviour
  - e.g. charge off risk on entering collections
- Give numerical estimate of expected behaviour
Collection scores:
Measure underlying customer risk

Score = probability of charge off
Example data sources: Collection scores

- Predictive power determined by quality and range of data

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Use in collection scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application data</td>
<td>Frequent</td>
</tr>
<tr>
<td>Account history</td>
<td>Frequent</td>
</tr>
<tr>
<td>Credit bureau</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Collections history</td>
<td>Negligible</td>
</tr>
<tr>
<td>Calling history</td>
<td>Negligible</td>
</tr>
</tbody>
</table>
Typical collections action path

Collections actions over time: severity increases as risk increases

Days since entering collections

Intensity of actions

1 2 3 4 5 6
Actions equate to perceived risk
Actions equate to perceived risk

Projectory over time for an average case

Charge off risk vs. Days since entering collections
Actions equate to perceived risk

Projectory over time for an average case…….
…..dictates tactics – timing and type

Charge off risk

Days since entering collections

Customer retention

Customer rehabilitation

Full balance collection and severance
Collection scores: identify risk “at entry”

Scores therefore refocus tactics….

Charge off risk

Days since entering collections

Score 100

Score 200

Full balance collection and severance
Tactics relate to entry risk and time in collections

Scores therefore refocus tactics….

……..in terms of risk and time

Charge off risk

Customer retention

Score 200

Score 300

Days since entering collections
Credit Scoring, Data and Decisioning

ScorePlus

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## Example data sources: Collection scores

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<tr>
<th>Data Source</th>
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<tbody>
<tr>
<td>Application data</td>
<td>✓</td>
</tr>
<tr>
<td>Account history</td>
<td></td>
</tr>
<tr>
<td>Credit bureau</td>
<td>X</td>
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<td></td>
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</table>

**Consequence:** score minor component of strategies
Solution: Campaign-based scores

- Model 1: collection action: Score 1
- Model 2: collection action: Score 2

- Build two score models to test outcomes
- Captures action and reaction
  - collections history key component
### Who-to-call example

<table>
<thead>
<tr>
<th>Account</th>
<th>Probability of Payment With a Collection Call</th>
<th>Probability of Payment With no Collection Call</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>18%</td>
<td>17%</td>
</tr>
<tr>
<td>No. 2</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>No. 3</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>No. 4</td>
<td>60%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Charge off risk

VS

X
When-to-call example

- Build contact models for each hour of the day
  - scores identify calling potential
- Captures action and reaction
  - calling history key component

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<tr>
<th></th>
<th>Morning</th>
<th>Afternoon</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account 1</td>
<td>40</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Account 2</td>
<td>30</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Account 3</td>
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When-to-call example

- Build contact models for each hour of the day
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- Captures action and reaction
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<td>Risk at entry</td>
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<td>Group tactics</td>
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<td>Collections history</td>
<td>Campaign</td>
</tr>
<tr>
<td>Calling history</td>
<td>Individual actions</td>
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**Consequence:** score major component of strategies
Credit Scoring, Data and Decisioning

- ScorePlus
- Data
- Group Actions
- Individual Actions

Scoring