Using Information Effectively to Make More Profitable Decisions: The Ten Letter Solution for Finance

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Presentation Overview

• "Issues confronting today’s financial executives."

• "What is Business Intelligence & Customer Relationship Management?"

• "Ten letter Overview"
  – "What is the data warehouse and how is it used?"
  – "How does this warehouse with SAS analytics drive results?"
  – "What does the Spatial Analysis contribute?"
Many critical issues that impact today’s Financial Industry executives

- Product Profitability
  - What are my most profitable products and why?
  - Am I pricing my products using market interest rates?
  - How can I re-price or re-package my un-profitable products?
  - What are the most popular products being sold?
  - What is the Net Margin on all accounts originated last month?

- Segmentation
  - Who are my most profitable customers? What do they look/act like so I can keep them?
  - How should I segment my customer base?
  - How much do my least profitable customer cost me each month?

- Acquisition
  - What characteristics do my most profitable customers have?
  - How can I find more like them to target?

- Retention / Cross-sell
  - What are the “next most likely” products to cross-sell?
  - How many products do my customers own?
  - What products deepen a relationship?
  - How do I manage and track opportunities?

- Channel Usage
  - What is my channel usage by segment? By branch?
  - How are my transactions migrating to less-expensive channels?)
  - How do I optimize my staff during peak transaction volume periods?

- Volatile Interest Rates
  - I want to remove the interest rate risk from my organization.
  - I would like to “match fund” all accounts using market interest rates

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Cost Justification for CRM and BI or "You are not alone..."

- In a typical bank, 20% of the customers represent 160% of the profits. *First Manhattan Consulting*
- A 5% increase in retention can produce an increase in profits between 25-80%. *Bain and Co.*
- A customer with one relationship with a bank has a 35% chance of leaving. *Oliver Wyman & Co.*
- A customer with 3 or more relationships has an 85% chance of being with the bank for 3-5 years. *Oliver Wyman & Co.*
- "A shift in the customer mix from 30% (A's) - 30% (B's) - 40% (C's) to 40-30-30 can often raise overall profits by as much as 60%." *American Banker*
What is Business Intelligence and Customer Relationship Management

• Business Intelligence is the art of structuring disparate data and data sources to create actionable information

• Customer Relationship Management applies that knowledge across the business to every touchpoint with the customer, providing a consistent and enriching experience

• Technology is enabling the ability to do both like never before...
First you have to organize your data into a single clean repository...
Then you have to analyze your data in this repository and turn it into information.
Then you deliver this information - tailored for specific business use - to your management and customer touchpoints

- Every channel - consistent message, consistent information and branding
- Problem tracking and resolution
- Sales management tracking and follow through
The Foundation for the solution is the Data Warehouse

The Data Warehouse is IBM's quick-start Business Intelligence and Customer Relationship Management solution targeted at Financial Institutions called the EZMart

This Data Warehouse is built upon IBM’s DB2.
The Data Warehouse is key to the intelligent use of information throughout the Financial Institution.
After building the warehouse the first step is Profitability Analysis.

Sample templates are utilized that allow total profitability to be determined by summing its parts such as:

- Customer Profitability - Determines the Bank's most profitable customers.
- Product Profitability - Determines the Bank's most profitable products and groups of products.
- Organizational Profitability - Determines the Bank's most profitable regions and branches.
- Channel Profitability - Determines the Bank's most profitable channels.
EZMart is constructed based on the aggregation of transactional-level details which allows for a “bottoms-up” view of customer profitability

**Business Views for Customer Profitability include**

- Organizational Unit
- HouseHold / Customer
- Accounts
- Product / Service Type
- Channels

**Household Profitability**

**Customer**

**Account**
- ATM Deposit
- Teller w/d
- VRU
- Internet Transfer

**Account-level Profit**
Account NIM + Account Fees - Costs - Taxes

**Customer - level Profit**
Sum of Account Profit

**Household Profit**
Sum of Customer Profit
Customer Segment Profitability SAS OLAP Report

The Customer Segment Profitability Report identifies Customer Net Contribution and balances. Individual customers or groups (segments, deciles, etc) can be identified.
The Channel Usage report identifies Channel (ATM, teller, internet, mail, etc), the Transaction Type and where transactions occurred.
The Product Profitability Report identifies the Net Contribution individual products deliver. Products can be grouped using bank-defined product hierarchies.
The Branch Profitability Report identifies organizational “Net Contribution”, transactions and balances. Branches can be grouped based upon client hierarchies.

Note: accounts “owned” by each branch define the branch profitability.
Products: Do some products require more transactions?  
How does this effect cost?  
Note: You now know transaction time and can staff based upon demand...

### Transaction Analysis by Product Group

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<tr>
<th>Product Group</th>
<th>Transaction Type</th>
<th>Transaction Description</th>
<th>Transaction Amount</th>
<th>Transaction Count</th>
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<td>Journal Credit</td>
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<td>Credit Transactions</td>
<td>Multiple Deposit</td>
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<td>Check Withdrawal</td>
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<td>Debit Transfer</td>
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<td>Check Deposit</td>
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<td>Credit Transfer From Loan Account</td>
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<td>Debit Transactions</td>
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Now that you know profitability distribution some areas of particular interest might be:

- Bankruptcy Prediction
- Credit & Risk Analysis
- Target Marketing
- Cross Selling
- Customer Winback
- Product Analysis
- Fraud Detection
Data Mining allows for many areas to be addressed

**Description**

State of the art algorithms search the Profitability Performance Data Mart for patterns and discoveries you didn't know were there.

**Sample applications/templates provided with the offering include:**

**Segmentation** - Determines which groups of your customers share characteristics. Based on these characteristics, tailor marketing campaigns to meet those segment requirements.

**Predictive Cross Sell** - Determines the next best product to cross sell to a customer and when the time is right to offer the product.

**Predictive Segmentation** - Predict customer variables from weather effects on buying to bankruptcy and life changes.

**Predictive modeling** - Predict who my customers are who are most likely to be in financial trouble before they declare bankruptcy.
Process Flow required to perform a typical Segmentation
SAS Enterprise Miner is required to identify “important” variables.
This allows for a Segment ("Cluster") to be defined that depends upon the Net Contribution, Product Ownership and Account Balance variables.
Spatial Analysis

Description
• Marketing Analytics: Spatial Analysis combines the power of the data warehouse with spatial analysis capability.

Samples of types of Spatial Analyses
• Customer Profitability by Geography - Determines the Bank's most profitable regions and prospect those regions for new customers
• Branch and ATM Site Optimization tools - Determines best location of branches and ATM sites to maximize access to profitable customers and minimize cannibalization.
• External Data - Combines census and other geographic data with your EZMart.
• How Far is Too Far - Determine what your trade area is and how far your customers will come for each product
• Who may be a potential on-line banker - Determine profitable areas to prospect for additional PC - Bankers
Where do my most profitable customers live?
And where do I find more of them...
Immediate, tangible benefits have been realized using “10 Letter Solution” in the mid-market.

Typical mid-market Bank

- $1.6 billion Total Assets
- 150,000 Customers owning 280,000 accounts
- $35 million net income / 2.1% ROA
- 10 deciles segments (15,000 customers / segment)
- Top decile generates 90% of overall profitability
- Top 2 deciles generate 130% of overall profitability

...by retaining 1% more Top decile customers this bank was able to generate $315,000 each year.

...by acquiring 1% more customers “just like” the Top decile generated $525,000 / yr.

...by retaining 1% more Top 2 decile customers generated $525,000 each year.

...by migrating channel usage to “upgrade” 10% of the most unprofitable into the least profitable decile generated $315,000/yr.
An example of one customer’s returns on “The 10 Letter Solution” (All numbers are $K.)
So what do the 10 Letters Stand for?

Better Business through Analytics

**IBM + SAS + ESRI**

for success in the marketplace
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