



Monetizing Data as a Strategic Asset Using SAP Predictive Analysis

Analyze

Visualize

Monetize



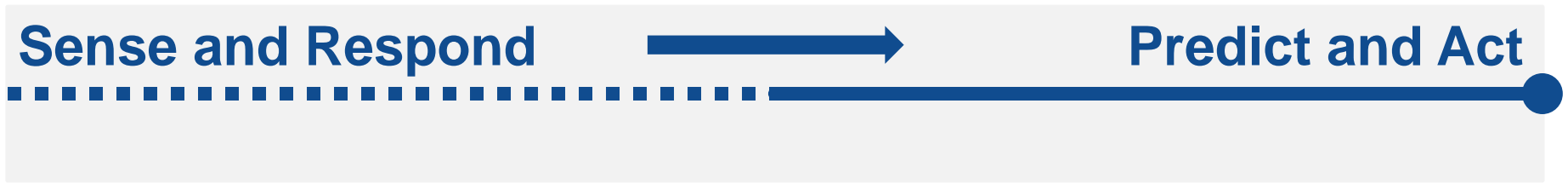
May 16, 2013

Todd Borchert

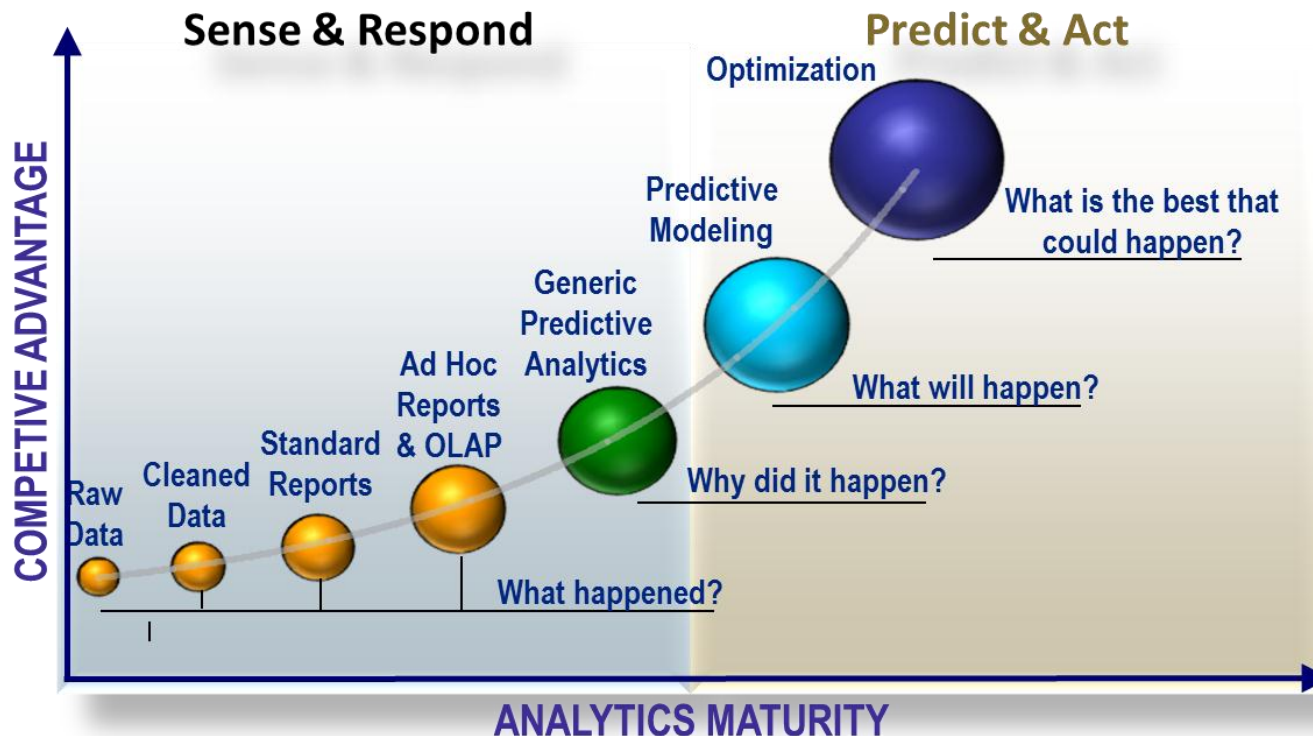
Where Do You Want Your Company Analytics To Be?



Predictive analysis enables you to extend your analytics capabilities:
Moving from the rearview mirror to a **forward-looking view**.



Extend Your Analytics Where You Want To Be



The key is unlocking data to move decision making from sense & respond to predict & act

Case Study – Large Specialty Retailer

Company Background

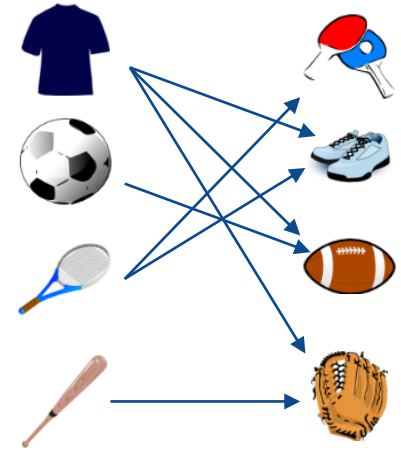
- Industry: Retail (Operates 790 stores in 49 states)
- Location: US

Business Problem

- Inability to evaluate marketing campaign effectiveness
- Poor or incomplete customer insight
- Marketing and product offers were not aligned to segmented consumer purchasing behaviors

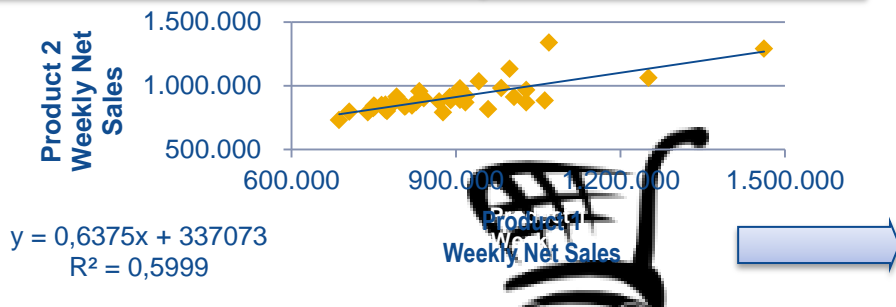
Products Deployed

- SAP Predictive Analysis
- SAP HANA
- SAP BusinessObjects Explorer



Market Basket Analysis Can Help Optimize Promotions

Product 2 vs. Product 1 Weekly Net Sales



Product 2 Weekly Net Sales by Gross Margin Percent



Market Basket Analysis helps retailers identify

Traffic drivers that will bring traffic when discount

Affinity products that sell with the traffic drivers

Observations

- There is a strong natural affinity between Product 1 and Product 2 categories, which remain strong when Product 1 is on sale, but Product 2 is not.
 - Affinity Lift decrease of ~9%
- Product 1 and Product 2 sales are highly correlated
- There is a linear relationship between GM% and Net Sales for Product 2 purchases with a negative slope of ~10%

Conclusions

- Cutting the Product 2 discount from 50% to 40% will:
 - Yield approximately the same Market Basket Affinity Lift as keeping the discount at 50%
 - Lower Product 2 units sold by <10%
 - Increase Product 2 profits by 65 – 75%

Changing Promotional Mix Will Drive Higher Gross Margin



Recommended Market Test 2:

- During Summer Campaign promotional period **combine a 50% promotion on Product 1 with 40% promotion on Product 2**

Expected Market Outcome

- Minimal Impact on incremental traffic: 0-3% decrease
- Decrease in number of Product 2 units sold: <10%
- Increase in Product 2 Revenue: 20-25%
- Increase in Product 2 profits: 65-75%
- Increase in Product 2 Gross Margin Rate: ~1,500 bps

Supporting Analysis

- Market Basket Analysis using the Apriori algorithm in SAP Predictive Analysis with SAP HANA
- Linear regression algorithm in SAP Predictive Analysis



Case Study – Large Insurance Company

Company Background

- Industry: Insurance (\$25B)
- Location: US

Business Problem

- Current investigation process is a manual time-consuming process
- Limited ability to investigate increasing number of suspected fraud cases
- Reduce lead time to review a case without a reduction in fraud identification capability

Value Delivered by Cognilytics

- Created Predictive models – apply “Fraud Score” to new cases, which enabled increased ability to predict fraud/no-fraud with explanations
- Developed fraud scoring of referrals lifts that demonstrated early fraud identification with greater accuracy
- Demonstrated a continuous improvement process for understanding and predicting Fraud within the same tool

Case Study – Large Insurance Company (cont.)

Solution Approach

- Installed SAP Predictive Analysis and gathered 2 years of known Fraud cases
- Assembled data and built data Model
- Model enabled cases to be resolved faster by identifying the reason for suspicion while identifying explainable patterns
- Deployed SAP Predictive Analysis
- Reduced the time required per case allowing the organization to investigate a greater percentage of referrals without an increase in headcount





Case Study – National TV Network

Company Background

- Industry: Media
- Location: India

Business Problem

- Revenue Planning:
 - What levers can the network pull to change the revenue mix from clients?
 - Where do we stand with the current Cost per Rating Point (CPRP) from each client?
 - What is the expected CPRP from the clients at alternate target levels?
- Spot Optimization
 - How can the network allocate the inventory across clients and programs optimally?
 - What is the objective function?
 - What are the constraints?

Value Delivered by Cognilytics

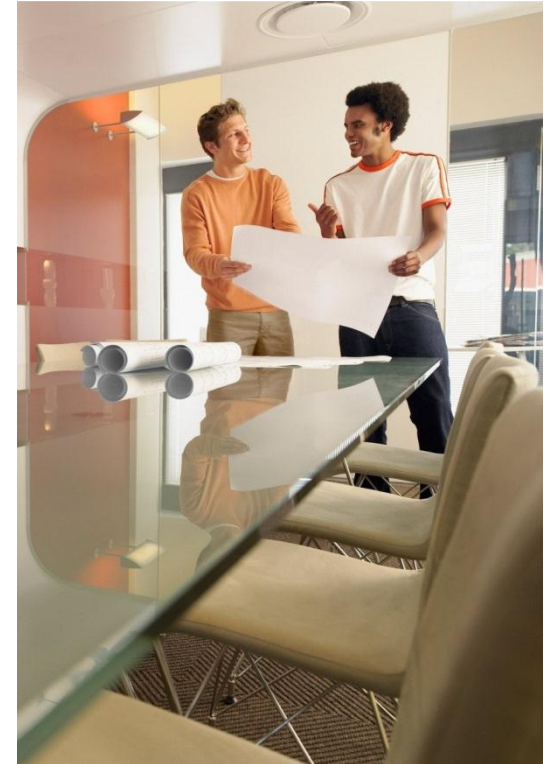
- The allocation exercise revealed 29% of total Free Commercial Time allocation which the network can either up-sell or cross-sell to existing clients
- Overall cost per rating point (CPRP) has increased by 13%

Case Study – National TV Network (cont.)



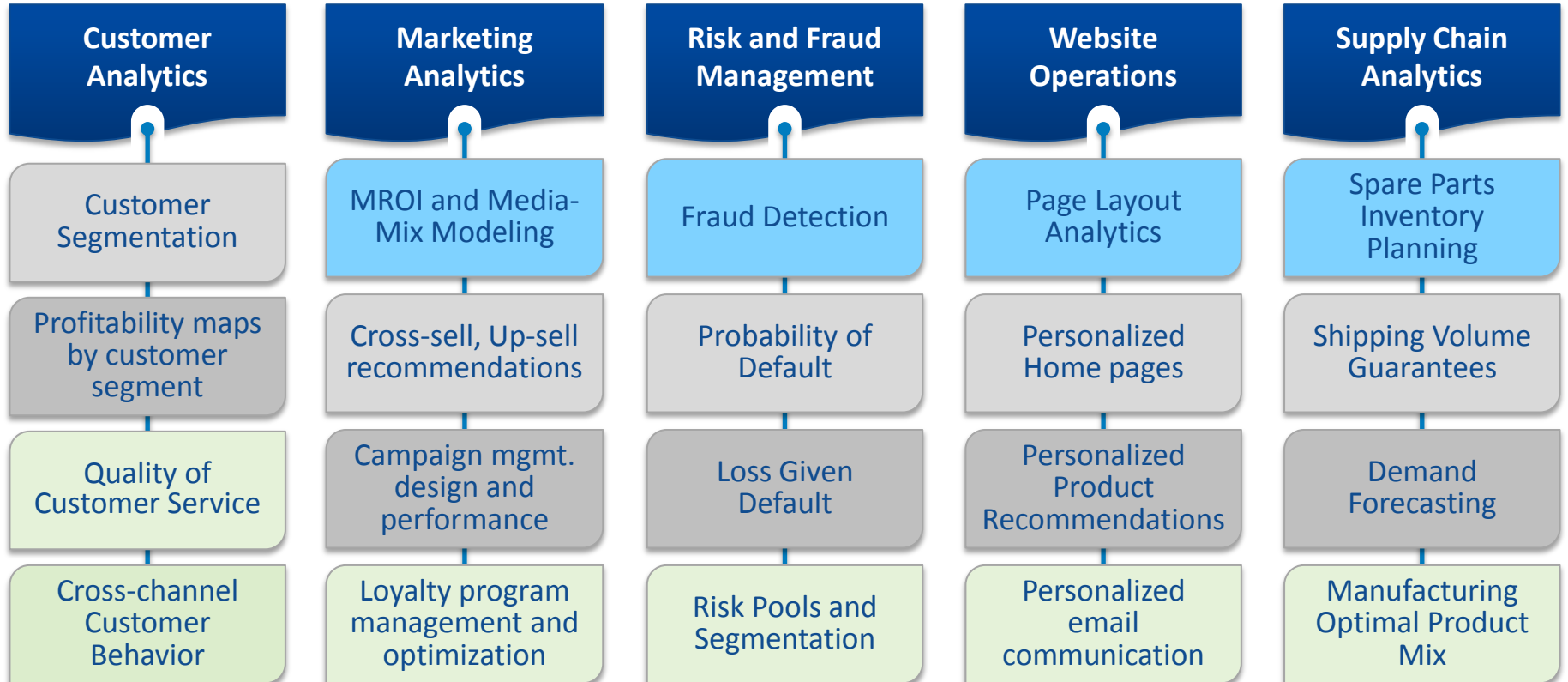
Solution Approach

- First, we used clustering criteria to segment clients based on their historical behavior
- Second, we defined a revenue functional form to estimate the revenue from a given Advertising Gross Rating Point (GRP) and Cost per Rating Point (CPRP)
- Third, we defined a profit equation that maximizes the CPRP for a given inventory of Ad GRP for the network and competition
- Fourth, we optimized time slots per client subject to constraints to capture optimal spot allocations



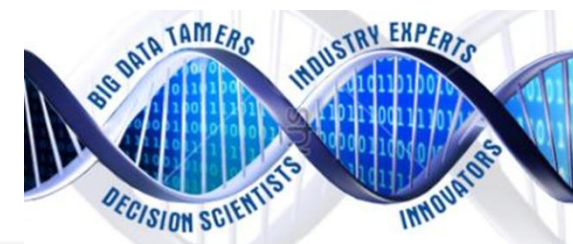


Business Use Case Categories



Cognilytics Predictive Analytics Practice Overview

Cognilytics provides a unique combination of Big Data and applied industry expertise that delivers innovative and monetize-able insights to our clients, by utilizing advanced decision science techniques



Predictive Analytics Offerings to Support a Comprehensive Enterprise Wide Strategy

Customer Analytics

- Customer Segmentation
- Cross Sell / Upsell Modeling
- Retention & Loyalty Modeling
- Customer Lifetime Value

Pricing Analytics

- Price Optimization
- Price Sensitivity Analysis
- Market Basket Analysis
- Next Product to Buy

Marketing Analytics

- Marketing Mix Modeling
- Response/Conversion Modeling
- Offer/Channel Optimization
- Coupon/Promotion Effectiveness

Supply Chain Analytics

- Demand Forecasting
- Key Driver Analysis
- Simulation
- Predictive Maintenance

Model Build, Validation, Refresh, Performance Mgt

Linear Models Time Series Hazard Modeling Decision Trees Machine Learning Clustering

Risk Analytics

- Stress Testing
- Fraud Detection
- Loss forecasting
- Capital Reserve Forecasting

Thank You!

How to contact me:

Todd Borchert

Sr. Director, Predictive Analysis

todd.borchert@cognilytics.com

Visit Cognilytics at Booth 1049