Case Studies

TUTORIAL ON
Business Intelligence (BI) & Analytics

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CSI 09
CED Highlights

• Unique dashboard measuring end to end Customer experience
• Senior executives both internal and external to minimize the subjective customer emotion
• Highly visible cross functional initiative involving 3 groups
  – Corporate Quality
  – Customer Advocacy
  – Engineering
• Provides visibility across all key functional areas in one place
  – CAP
  – Account Relationship
  – Order Fulfillment
  – Software Quality
  – Hardware Quality
  – Technical Support
  – RMA Delivery
  – Network Reliability/Availability
  – Product and Service Sales
CED Highlights Contd..

- Provides Common metrics for discussion between Client and Customer Execs
- Currently ~400 users. Expected to growth to ~1800 in few months
- Highly Collaborative effort with 9 other IT Teams
- Integrates many Complex Subject Areas and Data Sources
  - 8 Application Data Sources and 8 Manual sources.
- Siebel Dashboard that includes
  - 8 Categories, 16 Metrics, 18 pages with 50 metric based reports in R1
  - Clients Vs Customer Targets View for all metrics
  - 5 Groups of Security and Data Level Security by Customer Account
Customer Experience Life Cycle

More categories to be added

- Active Customer Escalations
  - CAP App
  - SSM - App
  - CAP Account Relationship
  - Order Fulfillment
  - TL9K & ERP (ODS)
  - RMA Delivery
  - Network Availability
  - Software Quality
  - Technical Support
  - Hardware Quality
  - C3-BL
  - DDTS (QBL)
  - C3-BL & Manual (Excel)
  - QBL
  - Software Bugs
  - On Receipt of Product
  - Product Stability
  - Customer Support
  - Returns/Replacements
  - Product Delivery

SAAMA CONFIDENTIAL
Reactivating Dormant Customers: An example of Data Mining and Predictive Analytics

- Advanced analytics for customer prospecting to attract new customers for the holiday season.
- Direct mail campaign of over 1,000,000 mailings in total.
- Discovered a Power Segment of the population that comprises only 2% of the population, but accounts for approximately 20% of the revenue.
- We targeted the Power Segment and obtained 6% more dollars per mailer than the most profitable segment discovered by a large direct mail house.

Power Segment: 2% driving 20% of revenue

- Tier 2 Customers
- Tier 3 Customers
- Tier 4 Customers
Some Top Responders had very low RFM

RFM Re-Activation Campaigns
Retail Case Study: Summary

- Leveraging CRM investments by making predictions.
- A clear data mining strategy yielded the discovery of a Power Segment that was driving significant revenue.
- Key point: thoughtful integration of predictive analytics can drive revenue well above usual methods.
Case Study II: Automotive Manufacturing

• A major automotive manufacturer wanted to optimize their website in order to improve sales and customer satisfaction

• BPM Predictive Goal:
  – Improve sales
  – Improve website efficiency
  – Increase customer satisfaction

• Data
  – Clickstream
  – Customer demographics
  – Purchase history

• Model
  – Clickstream visualizations
Effect of recommended change

over 50% increase in the percentage of sessions beginning the process

Normalized Daily Percentage of Sessions Which Start the Performance

Design change

Statistically Significant Δ (P < 0.001)
Effect of recommended change

over 50% increase in the percentage of sessions completing the process

Normalized Daily Percentage of Sessions Starting the Performance Which Complete the Performance

Statistically Significant $\Delta$ ($P < 0.001$)
The financial impact of the design change is extraordinary.

- Increase in revenue of over 120% for Performance users.
- Nearly 30% increase in overall revenue from the site!
- **Summary:** BPM and E-commerce: a marriage made in heaven.
- **Key point:** Objectively evaluating business processes based on real data can drive significant immediate revenue.
Case Study IV: Market Volatility Forecasting

- Given Russell 2000 stocks
- Predict extreme downturn in market conditions
  - 30% drop in ten days
  - Market conditions were going up at a staggering rate (1999-2000)
- Built a predictive model to forecast significant upswings and downswings in market
- First forecasts generated $6.2M in revenue
- Must have risk tolerance to do BPM in this space.