성공적인 마케팅 통합관리를 위한 분석 적용

Analytics for Integrated Marketing Management

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Advance Analytics, SAS Korea
Agenda

- Analytics trends in the Big Data era
- Three keywords in Big Analytics
- Case study
- SAS CI6
- VA DEMO
IMM (Integrated Marketing Management)

**Experience**
- Consistent Customer Experience
- **Channels**
  - In Person
  - Call Center
  - Social
  - Direct Mail
  - Mobile
  - Online
  - Radio
  - TV

**Decisions**
- Orchestration
- Performance Management
- Digital/Social Marketing
- Marketing Optimization
- Behavior based EBM
- Real-time marketing
- Customer Experience Personalization

**Insight**
- Customer Profit Analytics
- Predictive Customer Analytics
- Online Customer Experience Analytics
- Visual Analytics
- High Performance Analytics
- Social Network/Media Analytics

**Data Management**
- Data Quality
- Data Integration
- Event Stream Processing
- Log Data / Unstructured data

**Operations Management & Strategy**
- 

**Departments**
- Finance
- Merchandising
- Risk
- Customer Service
- Corporate Affairs
- Operations
Analytics Trends in Big Data Era

Marketing Trends
- Social Media Smarter
- Simplicity
- Real Time
- Mobile
- Marketing-to revenue generation

Analytics Trends
- Big Data
- Simplicity-visualization
- Technology innovation
- Mobile Device
- Analytics-competitive edge
3 Keywords Big Analysis

1. Understand Deeply
2. Predict Timely
3. Optimize Precisely
Understand Deeply: 360 degree view

- Data is Bigger!

![Diagram showing data sources and customer insight](image)
Understand Deeply

- Social Network Analysis & Text Analysis

- Social Network Analysis
  - Links & Nodes
  - Communities
  - Role Assign.

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- Network
- Community
- Structure

- Role Assign.
  - 리더
  - 서브리더
  - 멤버
  - Outlier

- Text Analysis
  - Online Conversations
  - Brand & Market Monitoring
  - PR & Reputation Monitoring
  - Customer Satisfaction Monitoring
  - Product Development
  - Combine

Customer Value Analysis
Customer Experience Analysis
Understand Deeply

- **Transaction Data Analysis**
  - Credit card behavior history
    - Credit card payment pattern analysis
    - Understanding credit card holders' behavior before receiving a loan
  - Non-monetary Transaction Data

- Internal Big Data
  - Customer behavior data
    - Website visit records
    - Call center records
  - Data that best reflects customer needs, time is important

- Transaction Data Pattern Analysis:
  - Hospital visit pattern
  - Relocation pattern

- Real Time Data
  - Personalized Offer

- External data and derived variables
Case Study: KDDI

- Complex analysis

1. 네트워크 위험도가 큰 Influencer를 파악함 (고객 충성도 관리 부서)

   - 이탈 가능성 (?)
   - 추가적 이탈 가능

   이탈 방지 프로그램 의 효율성 개선, ROI 개선

2. KDDI Influencer를 신규 휴대폰 런칭 행사에 초대 (광고 부서)

   RT

   KDDI에 대한 입소문이 빠르게 확산됨

*RT: Re-tweet
Predict Timely

Right Time

Real Time Scoring

- 고객의 최근 행동이나 이벤트를 반영하기 위한 Time Gap 축소
- 월 배치 → 일 배치 → Near real time
- Cross Channel 적용을 통한 마케팅 효과 극대화

Visualization

- 적절한 시기에 여러 데이터들을 다양하게 탐색하여 간단한 business insight를 얻거나 in-depth 분석을 위한 사전 분석 수행이 필요
- 거대한 양으로 오랜 기간 보관하기 어려운 데이터들, 즉 흩트려버리는 데이터들을 탐색적 분석을 통해 간단히 insight 획득
Predict Timely

- **Real Time Scoring**

  - **Customer is identified**
  - **Determine Customer Value**

  - **High Churn Propensity**
    - Route immediately to agent
  - **Billing Enquiry**
    - Route down billing enquiry IVR path
  - **Payment Extension**
    - Route down payments enquiry IVR path

  **Our model data**

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Predict Timely

- Real Time Scoring

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Score Customer in Real-Time

Deploy the Scoring Model in RTDM

Productionise in Model Manager

IVR

Real Time Scoring
Case Study: ABN AMRO

Challenge

- Regain customer confidence—adapt marketing from mass campaigns to many more personalized targeted campaigns to fewer customers in real-time.

- **Leverage move of customer interactions moving from branches to online and mobile channels.** ABN AMRO needed to adapt to the changing market to stay in business.

- **Reduce churn and increase cross channel selling** by matching the same tailored customer experience other banks are delivering to customers.
Predict Timely

- **Visualization**

  - **BUSINESS MANAGER**
    - Domain Expert
    - Makes Decisions
    - Evaluates Processes and ROI

  - **IT SYSTEMS / MANAGEMENT**
    - Model Validation
    - Model Deployment
    - Model Monitoring
    - Data Preparation

  - **DATA MINER / STATISTICIAN**
    - Exploratory Analysis
    - Descriptive Segmentation
    - Predictive Modeling

  - **BUSINESS ANALYST**
    - Data Exploration
    - Data Visualization
    - Report Creation

  - **In Depth**
    - **데이터 탐색**
    - **Visualization**
Predict Timely

- **Visualization**

  - Real-time transaction logs data collection
  - Customer Behavior information
  - Market Sensing
    - Regional, time, and customer group micro-sensing
  - Statistical analysis methods (correlation analysis, regression analysis, Decision Tree, What-if Analysis, Market Basket Analysis) to understand the causal relationship
  - Business insights immediately shared via web or mobile (Tablet PC) for immediate decision making

  - Balance sheet analysis and tablet (Tablet PC) for immediate decision making
  - Immediate business insights
Case Study

- Telecom Italia

**Multimedia Service Management** in Telecom Italia is a dedicated structure to ensure optimum delivery of value-added services in mobile and fixed networks. Services that range for the mobile network from SMS to WAP, from broadband to MMS, from the email integrated with voice mail to availability notification services, and for the landline from IPTV to Web delivery of multimedia contents, up to wi-fi for high-speed trains.

- RHB Bank

**RHB Bank** specializes in commercial banking, corporate and investment banking and international banking services. RHB Bank was the one of largest bank in Malaysia.
Optimize precisely

Next Best Offer

Customer propensity Model

Recommendation

Optimization
Optimize precisely

- Net lift modeling

**Incremental Response analysis**

- **Do Not Disturbs** (Sleeping Dogs)
- **Lost Causes** (마케팅 효과 측정 불가)
- **Sure Things** (마케팅 효과 측정 불가)
- **Persuadables** (True Responders)

<table>
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<tr>
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**Difference score model**

\[
\text{Incremental Response Rate} = \frac{\text{Test group Response Rate} - \text{Control group Response Rate}}{\text{Control group Response Rate}}
\]

- **Treatment Group (Promotion)**
  - Response = Yes
  - Incremental Response
  - Response = No

- **Control Group (No Promotion)**
  - Response = Yes
  - Response = No
Optimize precisely

- Recommendation

Segmentation

Product hierarchy

Sequence
Optimize precisely

Optimization

Product A
Product B
Product C
Product D

Scoring

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Selection Optimized offer

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Customer preference / Propensity

Constraints

고려 조건
Case Study: Deutsche Telekom

Problem

• 유럽의 No.1 통신사업자, 15000만 이동통신 가입자
• 50개국에 자회사
• Full Service: Mobile, Fixed-Net, Internet, IPTV, ICT Solutions
• 이동통신사업 경쟁의 심화
• 가격 cut, 이익 down
• 모든 서비스 가입으로 인한 수익의 극대화
• Business Unit간의 No Alignment
• 매달 150개 이상의 오퍼 처리하는데 발생하는 문제점 해결
• Manual Campaign process

Solution

Analytics
Marketing Optimization

Value

과거 6주가 소요되던 Campaign Planning Time 단 몇 시간내에 해결

더 적은 은 Outbound-Calls 수행으로 반응률 향상
Case Study: Coles

- 목적함수
- 예측 스코어
- Optimization
- 최적 오퍼 제공

구매가능성 극대화
- Health Category
- Cereal Category
- 목욕용품 Category
- 세제 Category

• 각 제품 카테고리별 구매가능성 스코어 산출

Optimization

Coupon offer
- 15%
- 10%

• 제약 조건
  - 고객별 오퍼 갯수 예산 등

• 고객별 최적의 쿠폰 오퍼 제공

고객 가치의 향상 (Up about 33%), 고객의 Quality 향상 (Up over 50%) 전년대비 매출 4.2% 향상, 전년대비 이익 15.8% 향상,
SAS CI6 – Real Time Decision Manager

- Operationalized Analytics

**Event Filtering**
- Event 대상 여부
- Event 우선 순위

**Right Offer**
- 고객별 최적 오퍼
- 행동 패턴 / 실시간 스코어링 기반

**Right Channel**
- Cross Channel
- Next best offer 를 채널로 전송

- New capabilities to allow for categorization and segmentation with fewer nodes or without creating custom processes
- Allow for more interactive construction of campaigns with reduced dependency of IT or advanced users
SAS® Marketing Optimization process

Define Optimization Scenarios → Run & Review Optimization Results

- Input data set
- Create Scenario
- Optimization Objective
- Suppression Rules
- Constraints
- Contact/Blocking Policy
- Create new measure

Optimization → Optimization Summary report

Sensitivity Analysis → Objective Range Analysis → Scenario Comparison → Customized Report

“What-If Analysis”

- Optimization

- “What-If Analysis”

- Create new measure

SAS CI6 – Marketing Optimization
SAS CI6 – Marketing Optimization

- Setting the objective
- Constraint/contact policy
- Report
SAS Visual Analytics

Central Entry Point

- Data Preparation
  - In-Memory (LASR) server monitoring
  - Data load and join
  - Derived variable creation

- Visual Analytics
  - Interactive report generation

Integration

- LASR Analytic Server

Role-based Views

- Mobile BI
  - Interactive reports for mobile apps

- Report Designer
  - Web and mobile dashboards

SAS® LASR™ ANALYTIC SERVER
Thank You!

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Make Your Big Results with SAS® Visual Analytics