IBM Software
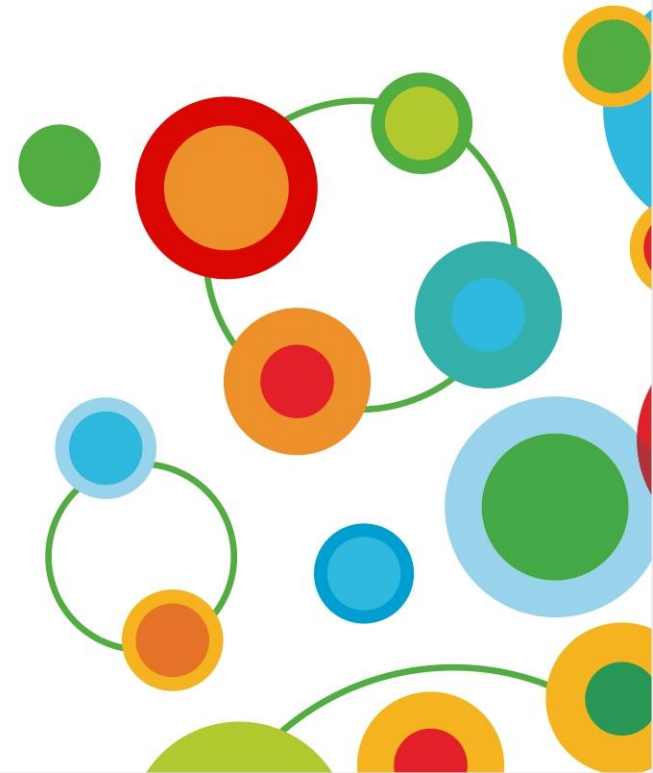
Information Management
& Analytics Forum 2013

Return on Information: The New ROI

Better business outcomes through Customer Analytics

Rajesh Shewani
Technical Sales Leader – Business Analytics, India/SA
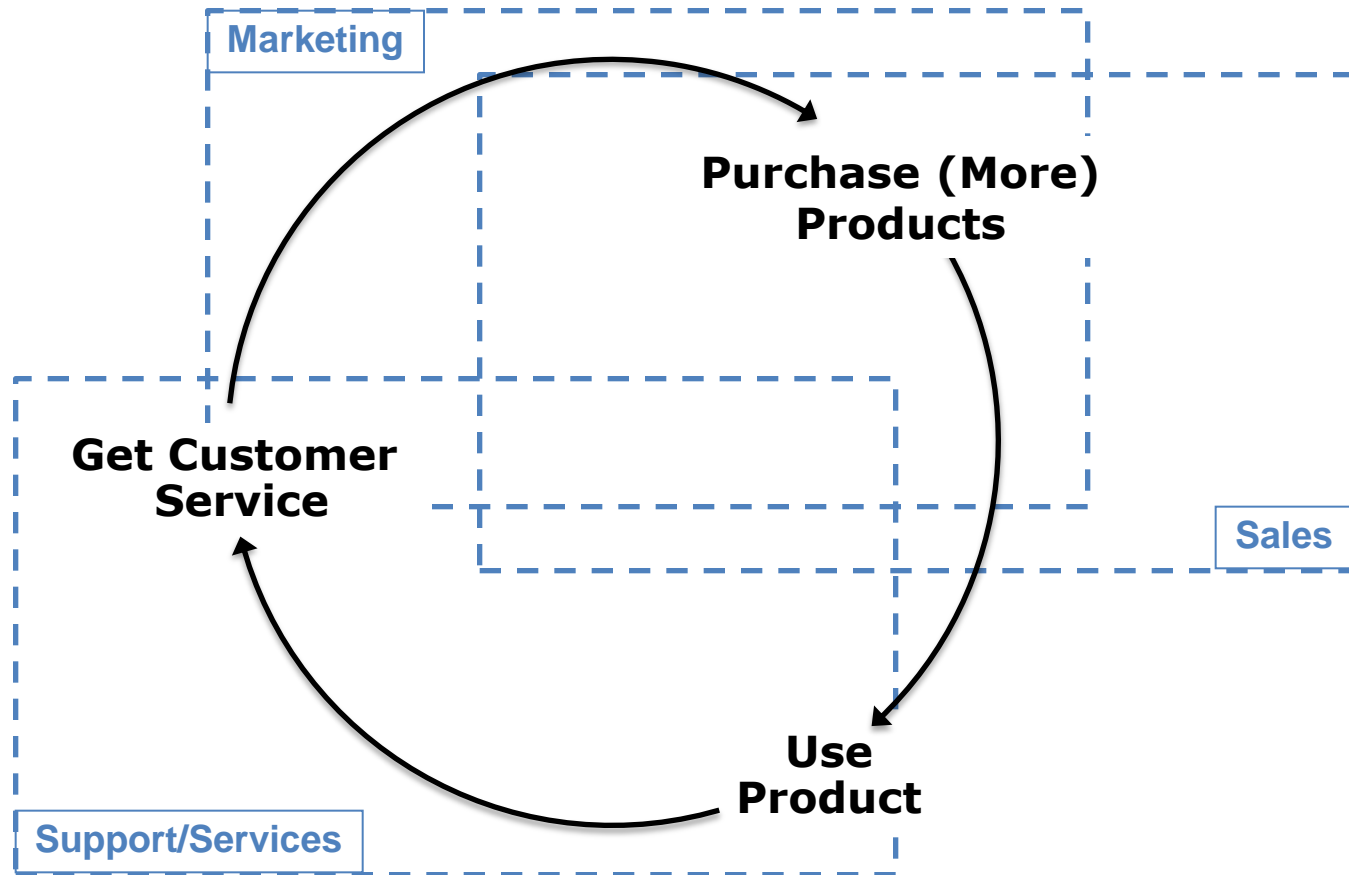rshewani@in.ibm.com

Agenda

The Age of the Empowered Consumer

Use of analytics to better understand and focus on customers

How organizations are using customer analytics to develop profitable relationships

Consumer Experience Framework – 10 years ago

The consumer has taken charge...

Customers have lost confidence in institutions

- *76% of customers believe companies lie in advertisements*
- *Growing trust gap in many consumer focused industries*

Technology is changing how customers interact

- *Social media changed purchaser influence; opinions viewable instantly*
- *Mass customization and personalization of products and services*

Evolving Expectations:
- ✓ Timely
- ✓ Localized
- ✓ Experiential
- ✓ Personalized
- ✓ Information

Expectations have changed

- *Focus is on value, transparency and accountability*
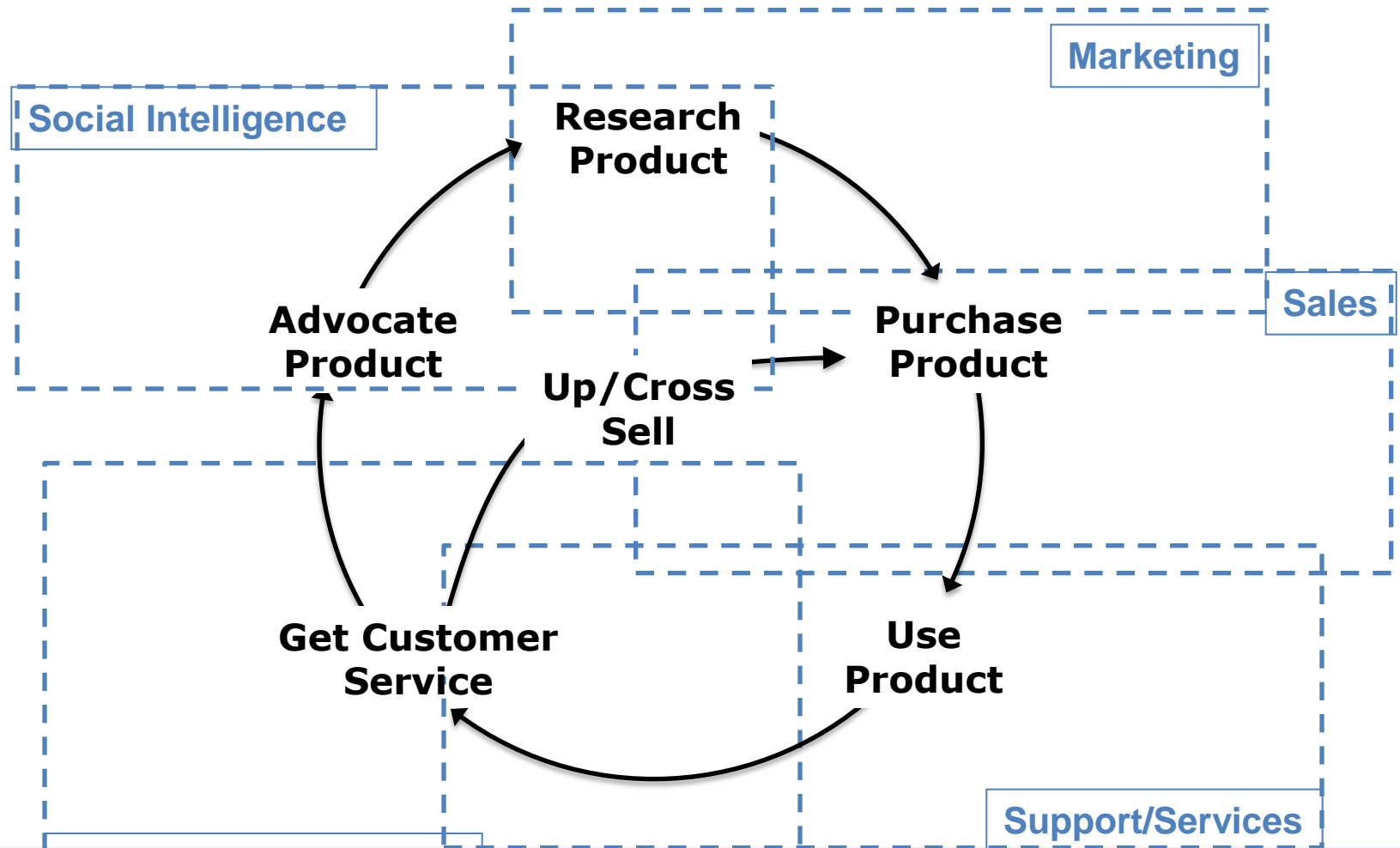- *Customers want to be seen holistically across the enterprise*

Institutions need to rediscover their customers

- *Consumers are experiencing brands in new ways though new channels*
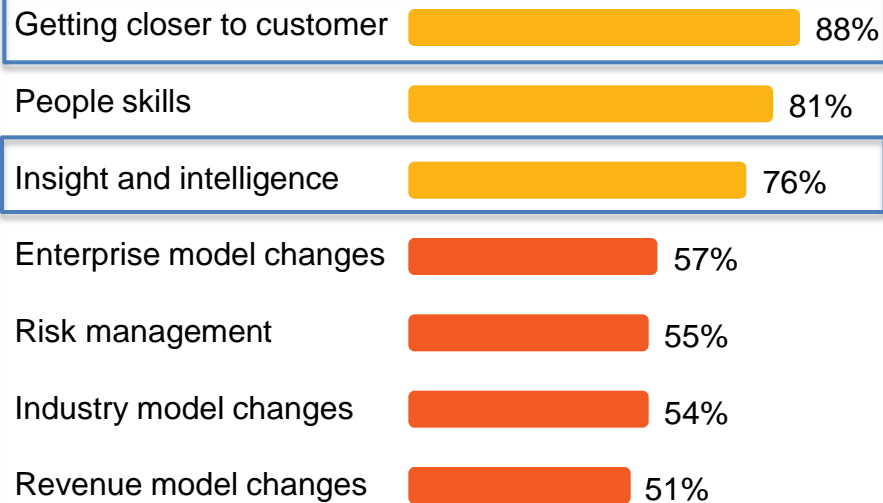- *Micro-targeting: the move beyond 1 on 1 is accelerating*

Customer Experience Framework today

IBM C-Suite studies

CEO Focus Over Next 5 Years

Getting closer to customer	88%
People skills	81%
Insight and intelligence	76%
Enterprise model changes	57%
Risk management	55%
Industry model changes	54%
Revenue model changes	51%

CMO 5 Year Focus Toward Digital

Enhance customer loyalty/advocacy	67%
Design experiences for tablet/ mobile	57%
Use social media as a key channel	56%
Use integrated software to manage customers	56%
Monitor the brand via social media	51%
Measure ROI of digital technologies	47%
Analyze online / offline transactions	45%
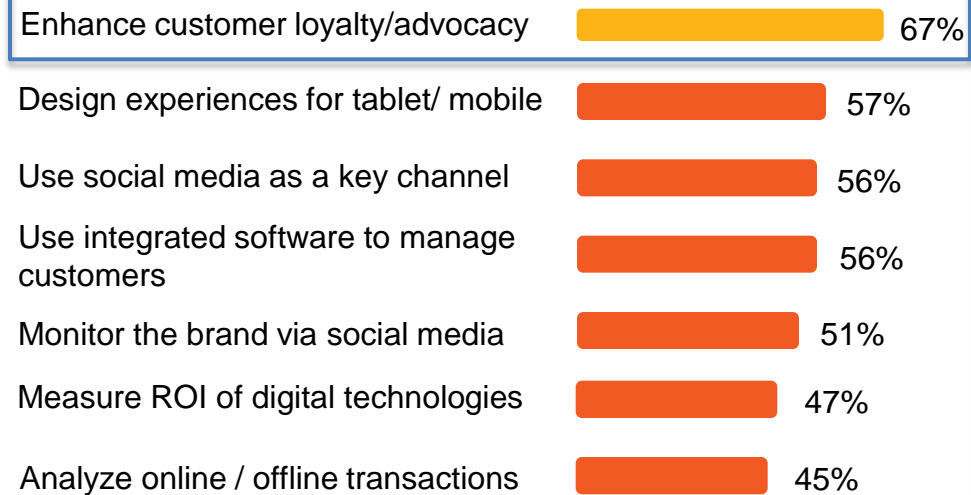
The customer experience is an enterprise responsibility

Operations

Human Resources

Product Development

IT

Customer Service

Sales

Marketing

Finance

New business challenges create a need for analytics

Lack of Insight

Velocity

Inefficient Access

Volume

Variety

Inability
to Predict

Traditional Approach

| Sense and respond |
| Instinct and intuition |
| Skilled analytics experts |
| Back office |
| Automated |

New Approach

| Predict and act |
| Real-time, fact-driven |
| Everyone |
| Point of impact |
| Optimized |
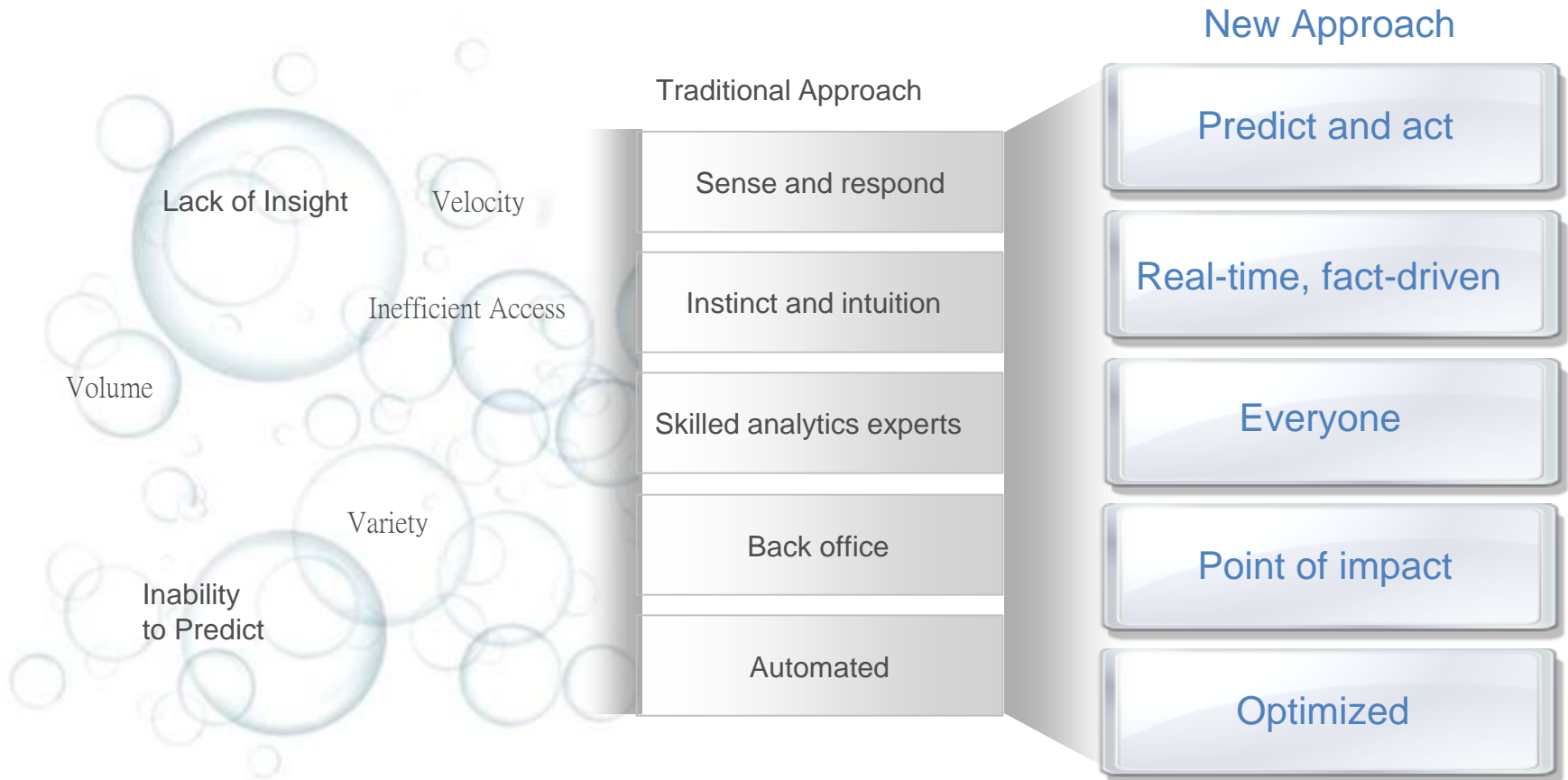
Data at the heart of customer analytics
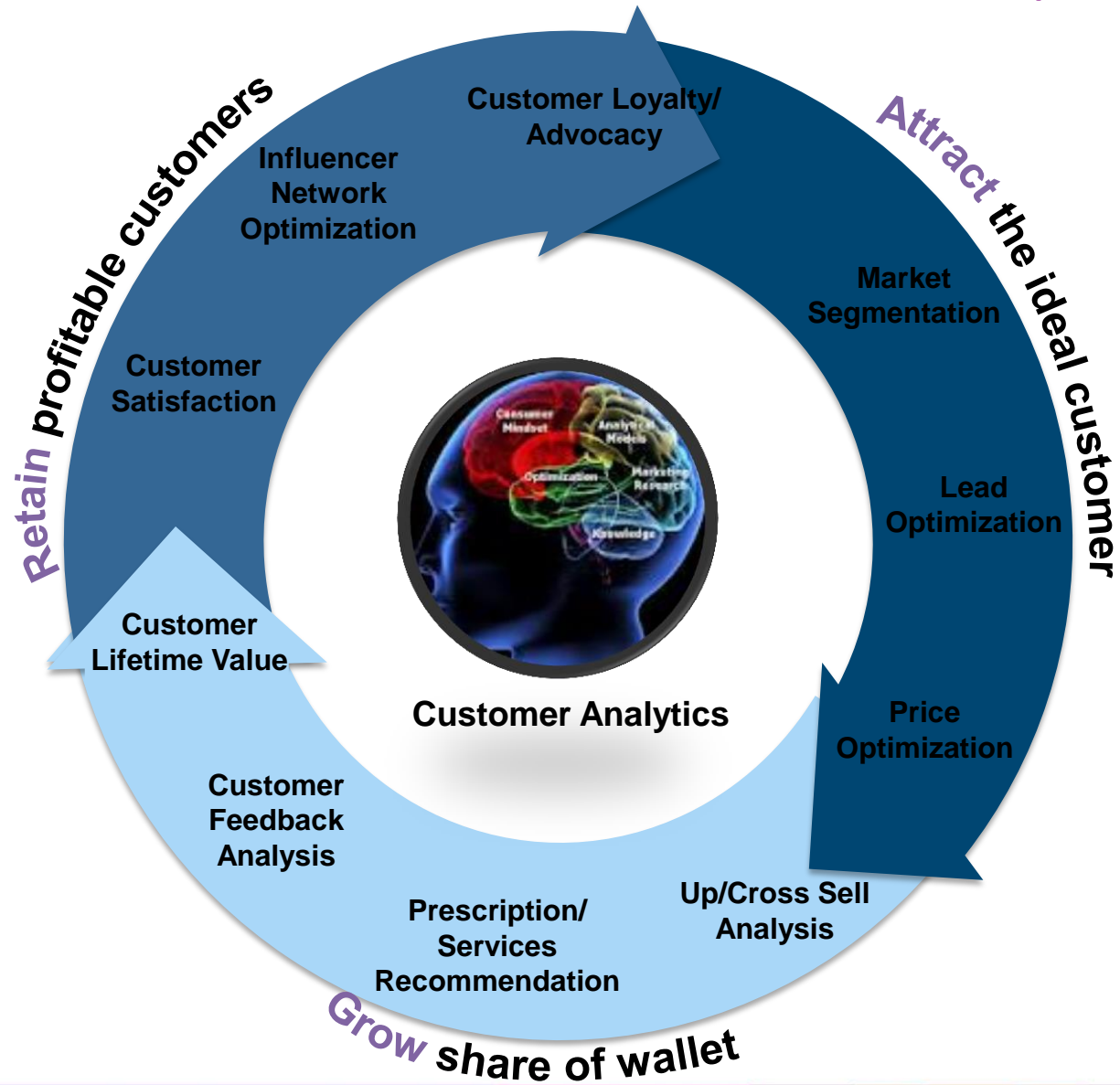
High-value, dynamic - source of competitive differentiation

Interaction data
- E-Mail / chat transcripts
- Call center notes
- Web Click-streams
- In person dialogues

Attitudinal data
- Opinions
- Preferences
- Needs & Desires
- Market Research
- Social Media

360 degree Customer View

Descriptive data
- Attributes
- Characteristics
- Self-declared info
- (Geo)demographics

Behavioral data
- Orders
- Transactions
- Payment history
- Usage history

"Traditional" – CRM Mentality

Customer experience framework – From the enterprise viewpoint

Customer Loyalty/ Advocacy

Influencer Network Optimization

Retain profitable customers

Customer Satisfaction

Attract the ideal customer

Market Segmentation

Lead Optimization

Customer Lifetime Value

Customer Analytics

Price Optimization

Customer Feedback Analysis

Up/Cross Sell Analysis

Prescription/ Services Recommendation

Grow share of wallet

Customer Analytics is all about the …

Passenger

Patient   **Constituent**
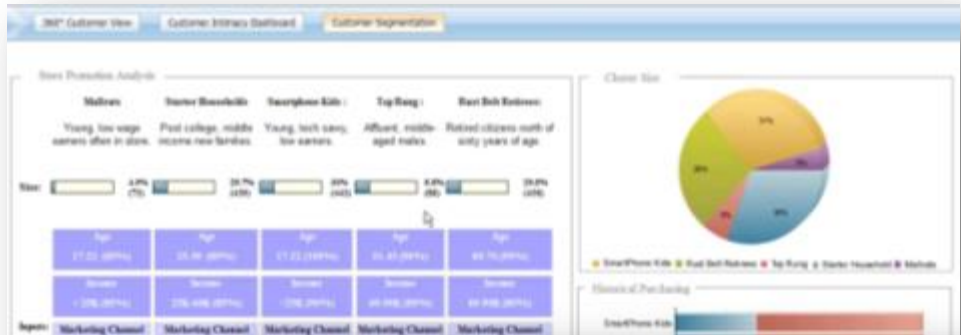
Customer   **Member**

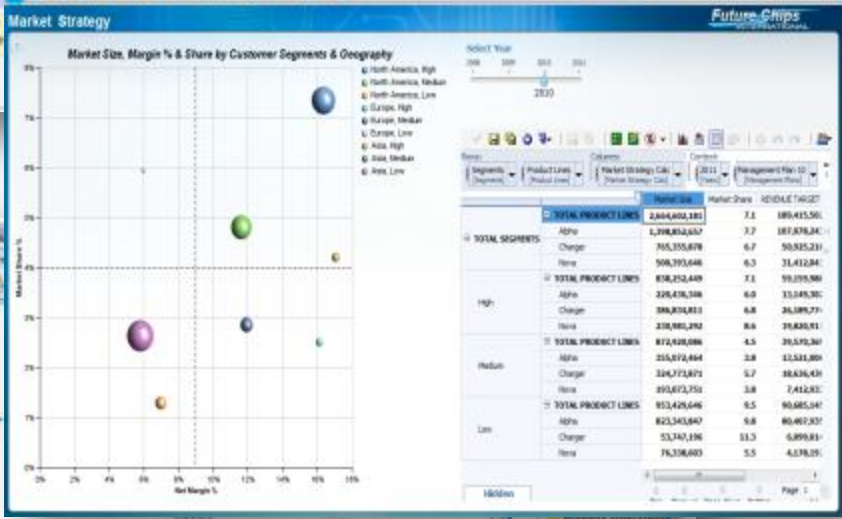**Student**   **Employee**

Citizen

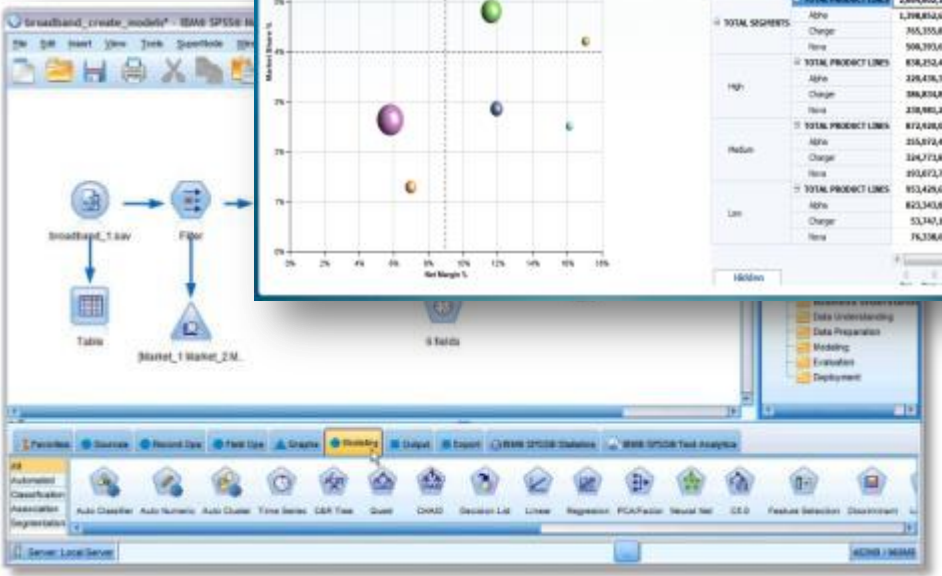# Customer insight & acquisition

Measure marketing performance through reporting

Optimize marketing budgets aligned with goals

Build accurate customer segments to determine the right offer, time, place, channel, etc…

Insight & acquisition – Techniques & solutions

- **RFM Analysis**
  - Cheap (low overhead) way to segment a database of customers
  - *Example: determine the groups of people for a coupon marketing offer*

- **Segmentation**
  - Ability to find hidden clusters / groups of people
  - *Example: identifying the people that are likely to buy*

- **Reporting & Analysis**
  - Provide historical and current views of business operations
  - *Example: provide insight into how a current sales campaign is performing*

- **Planning & Forecasting**
  - What-if analysis to drive timely decision making
  - *Example: determine the optimal marketing plan based on a set budget*
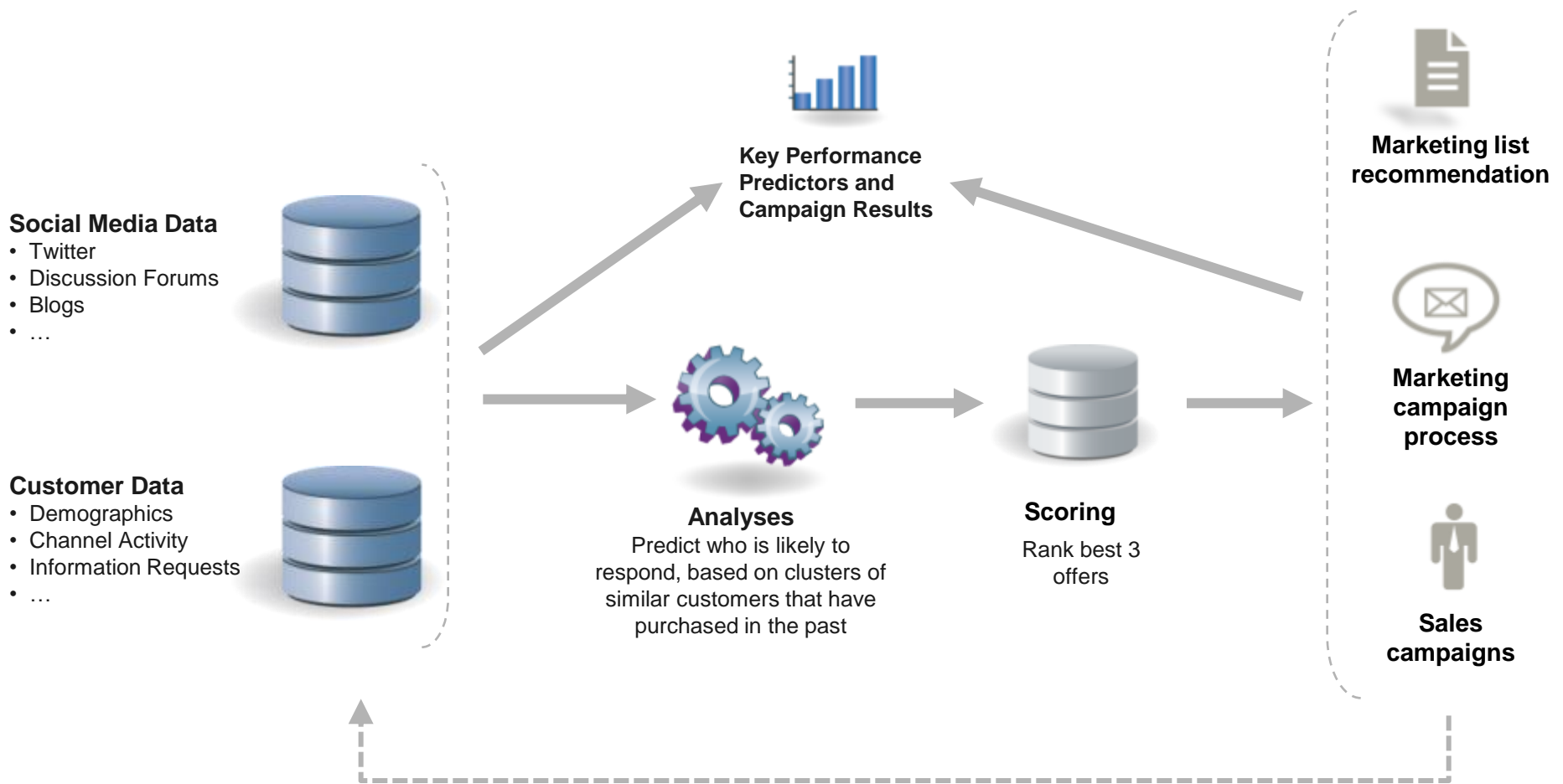
Customer Segmentation

Cross-Channel Campaign Optimization

Optimal Trigger Marketing

Lead Management

Budget Optimization

Customer insight & acquisition journey

Social Media Data
- Twitter
- Discussion Forums
- Blogs
- …

Customer Data
- Demographics
- Channel Activity
- Information Requests
- …

Key Performance Predictors and Campaign Results

Analyses
Predict who is likely to respond, based on clusters of similar customers that have purchased in the past

Scoring
Rank best 3 offers

Marketing list recommendation

Marketing campaign process

Sales campaigns

Align → **Anticipate** → **Act**

Unicef

Uses predictive analytics to get more donations

The Need

UNICEF Netherlands needed a solution that could help it analyze and better understand contributor behavior in order to map out long term developments and patterns for donations and optimize the use of its fundraising channels.

The Solution

UNICEF Netherlands optimizes the results of marketing initiatives with IBM SPSS Statistics. Performing in-depth analyses of prospect data enables it to achieve accurate forecasts and contributor profiles and create highly targeted prospect approach. Also handle millions of records effortlessly, and the integration of third-party market data.

What Makes it Smarter

- •. conduct highly targeted marketing campaigns yielding optimum results

- • map out the donation behavior of its contributors accurately and define clear-cut segments and profiles

- • The targeted campaigns minimize the chances of public irritation, hence enhancing UNICEF Netherlands' image.

- •Include third party data for additional insight

"IBM SPSS predictive analytics strongly improves the returns on our marketing campaigns. we're now able to better target our direct mail campaigns, we can identify the best neighbourhoods, where the response is 2.5 times higher "
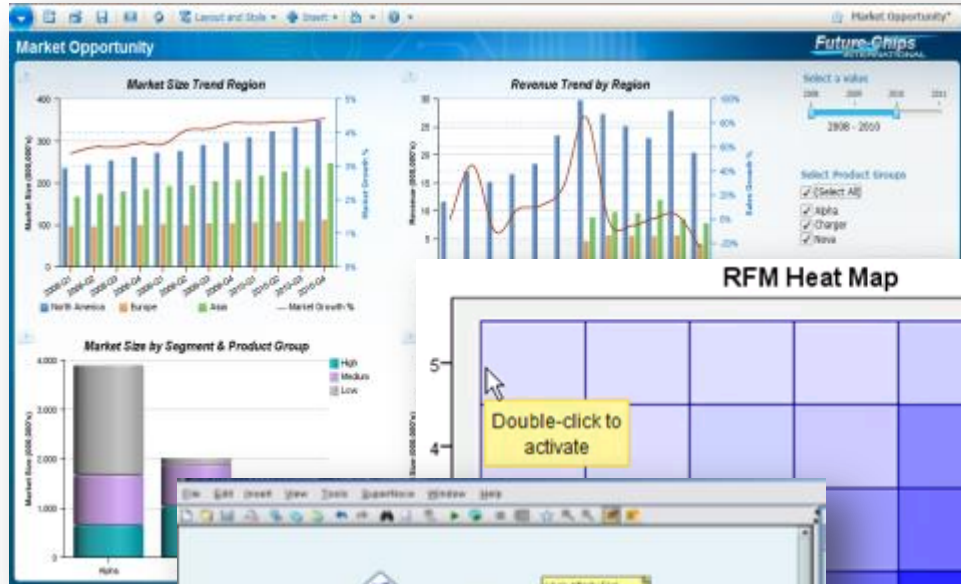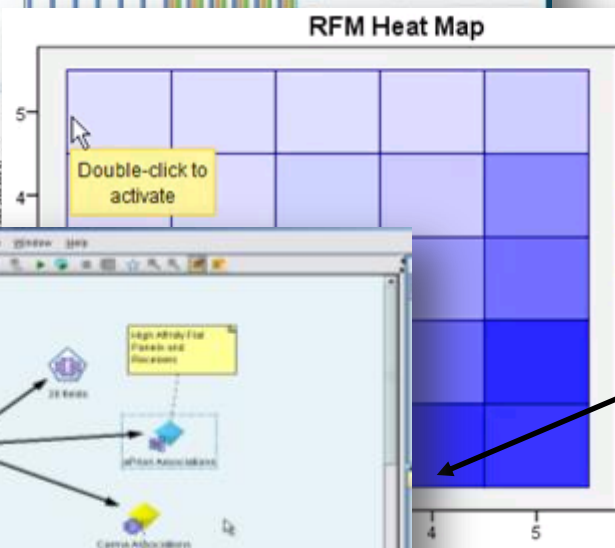Jan Kamphuis, UNICEF Netherlands data analyst —

Solution components:

- • IBM® SPSS Statistics Standard
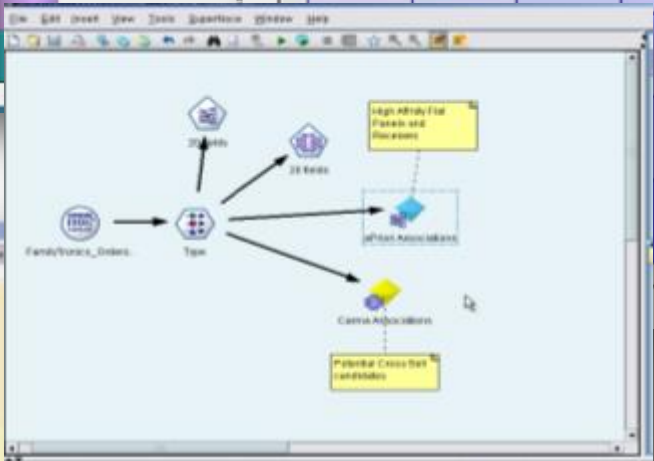
Customer lifetime value

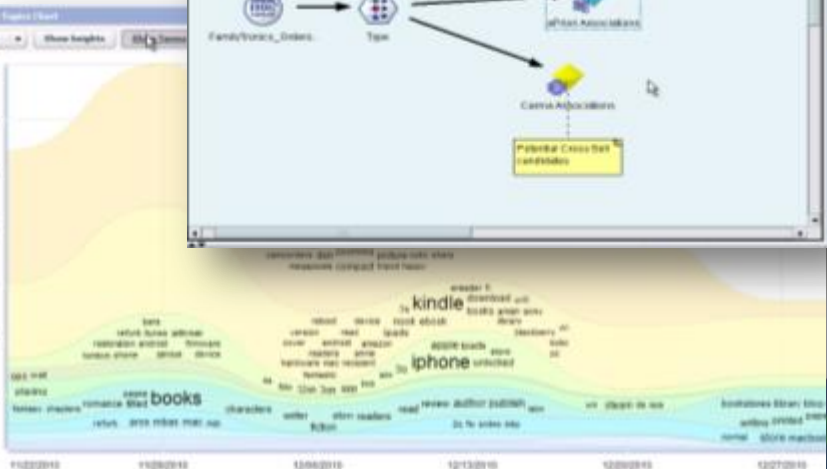Calculate, monitor & maximize customer profitability

Understand the factors that influence CLV

Target customers with the correct offer, channel, & time

Personalize up-sell & cross-sell offers with social media data

Customer lifetime value – Techniques & solutions

Association

- Finding the things done in tandem
- *Example: market basket analysis, students curriculums, insurance policies that are bought together*

Classification

- Identifying the attributes that are causing something
- *Example: give the cascading predictive attributes of purchase behavior*

Scorecards & Dashboards

- Translate strategy into accountability & measure progress
- *Example: monitor the continued success of cross-sell campaigns*

Market Basket Analysis

Next Best Offer

Prospect Assessment

Value pricing Optimization

Buying Process Optimization

Proactive Activation Service

Customer cross-sell journey

Campaign Data
- Contact history
- Response/purchases
- Test campaigns
- …

Attitudinal Data
- Customer Surveys
- Twitter
- Discussion Forums
- Blogs
- …

Customer Data
- Demographics
- Account Activity
- Product Holdings
- Channel Activity
- Information Requests
- Complaints
- …

Key Performance Predictors and Campaign Results

Analyses
Predict who is likely to respond, based on their customer profile *when receiving the campaign*

Scoring
Rank best 3 offers

Website recommendation engine

Marketing campaign process

Sales campaigns

Align → **Anticipate** → **Act**

KPN

Uses predictive analytics to Target right product to the right customer

The Need

KPN has a portfolio of more than 30 products that it sells to over a million business customers. The company's business marketing intelligence team needs to find out how best to allocate marketing budgets in order to maximize cross- and up-selling opportunities—a task that required complex analysis of huge volumes of data.

The Solution

By mining previously untapped customer data and developing predictive models, KPN is discovering new insights into which of its products will most likely appeal to which customers. Customers can be accurately segmented and then analyzed. Creation of marketing campaigns that specifically target certain customers, increasing the campaigns' potential effectiveness.

What Makes it Smarter

•Increases customer response rates to direct marketing campaigns

•increase revenue from certain customer groups by 50 to 70 percent

• Helps non-technical decision makers understand complex analyses and make better business decisions through compelling graphical presentations of data

•Identifies consumer purchasing propensity and predicts the outcomes of marketing decisions to increase direct marketing results and increase response rates by up to 1,000 percent.

Real Business Results:

- Increased customer response rates by 400 to 1,000 percent
- Increased potential revenue by 50 to 70 percent in certain customer groups
- Uncovered unexpected opportunities

Solution components:

• IBM® SPSS Predictive Analytics Software

Customer satisfaction & loyalty

Detect & mitigate customer issues during interactions

Understand causal factors for satisfaction / dissatisfaction

Incorporate sentiment from social media, surveys, etc…

Retain valuable customers by identifying defection probability

Continually monitor & track customer service levels

IBM Software
Information Manage
Return on Information: The New R

Customer satisfaction & loyalty – Techniques & solutions

Net Promoter Score

- Survey technique to determine customer satisfaction
- *Example: a question to determine whether a customer is a promoter detractor*

Sentiment Analysis

- Taking unstructured data and put it into an organized, structured format
- *Example: sentiment analytics for customer satisfaction in surveys & social media*

Anomaly Detection (outliers)

- Finding data points that are statistically significant in their difference from others
- *Examples: understand the best performing customer group / comment that doesn't fit / behavior that doesn't follow the norm*

Brand Monitoring

Social Feedback Analysis

Competitive Value Assessment

Loyalty Value Assessment

Customer Dialog Management

Retention Risk Management

Tap into Consumer generated content

How do **consumers feel** about our new message/ad?

What are consumers hearing about our **brand**?

What are the most talked about product attributes in my **product category**? Is it good or bad?

What is my **competitor** doing to excite the market?

Are my **business partners** helping or hurting my **reputation**?

Is there negative **chatter** that my PR team should respond to?

IBM Social Media Analytics

Business Drivers

Competitive Analysis	Corporate Reputation	Customer Care

Campaign Effectiveness	Product Insight

Source Areas

- FACEBOOK
- BLOGS
- DISCUSSION FORUMS
- TWITTER
- NEWSGROUPS
- MULTILINGUAL

Product Capabilities

COMPREHENSIVE ANALYSIS

- Keyword Search
- Dimensional Navigation
- Drill Through to Content

SENTIMENT

- Dimensional Analysis
- Filtering
- Voice

AFFINITY ANALYTICS

- Relationship Tables
- Relationship Matrix
- Relationship Graph

EVOLVING TOPICS

- Relevant Topics
- Associated Themes
- Ranking and Volume

The retention journey

Customer data:
Demographics
…

Transaction & billing data:
Purchase history, payment history, …

Interaction data:
Website usage, call center interactions …

Attitudinal data:
Satisfaction; Social media, …

Reports, KPIs, KPPs

Analyses
Predict the customer that will churn and why

Scoring
Decide Retention Offers

Automated campaign offers

Sales alerts

Call center recommendations

Automated campaign offer

Align → **Anticipate** → **Act**

XO Communications

The Need

improve its small business retention rate, a U.S. telecommunications company is using predictive analytics to anticipate voluntary customer defections.

The Solution

XO Communications adopted IBM SPSS Statistics and IBM SPSS Modeler software to help identify customers who were at a high risk of moving to another service provider.

What Makes it Smarter

• Understanding critical data is key to identifying risk factors. XO Communications

• Deployed an IBM SPSS predictive analytics solution that evaluates more than 500 variables for predicting customer defections within 90 days

• Allowed the Customer Intelligence team at XO to build an accurate regression model keying on the 25 most relevant variables

• Client service managers can then proactively prioritize outbound calls to at-risk accounts.

Real Business Results
Real Business Results:

- 60 percent improvement in revenue retention rates
- Realizing millions of dollars in annualized revenue protection
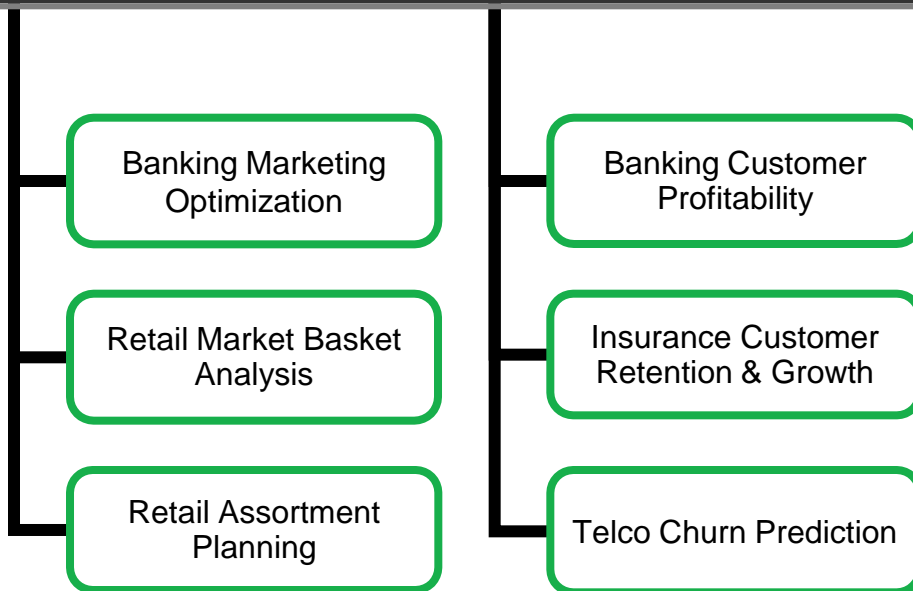- Fewer client services managers are needed for the same level of risk coverage

Solution Components

• IBM SPSS® Statistics and Modeler

Customer Analytics Industry Specific Solutions

Industry-Led Business Analytics Solutions

- Banking Marketing Optimization
- Retail Market Basket Analysis
- Retail Assortment Planning
- Banking Customer Profitability
- Insurance Customer Retention & Growth
- Telco Churn Prediction

Customer analytics maturity model

Insight for Decision Makers

Information on Demand
Breakaway
24.1% - 64.3%

Information Responsiveness
Differentiating
16.9% - 38.2%

Information Sharing
Competitive
6.2% - 18.7%

Information Cost Reduction
Foundational
0.2% - 2.9%

The Next Best Action
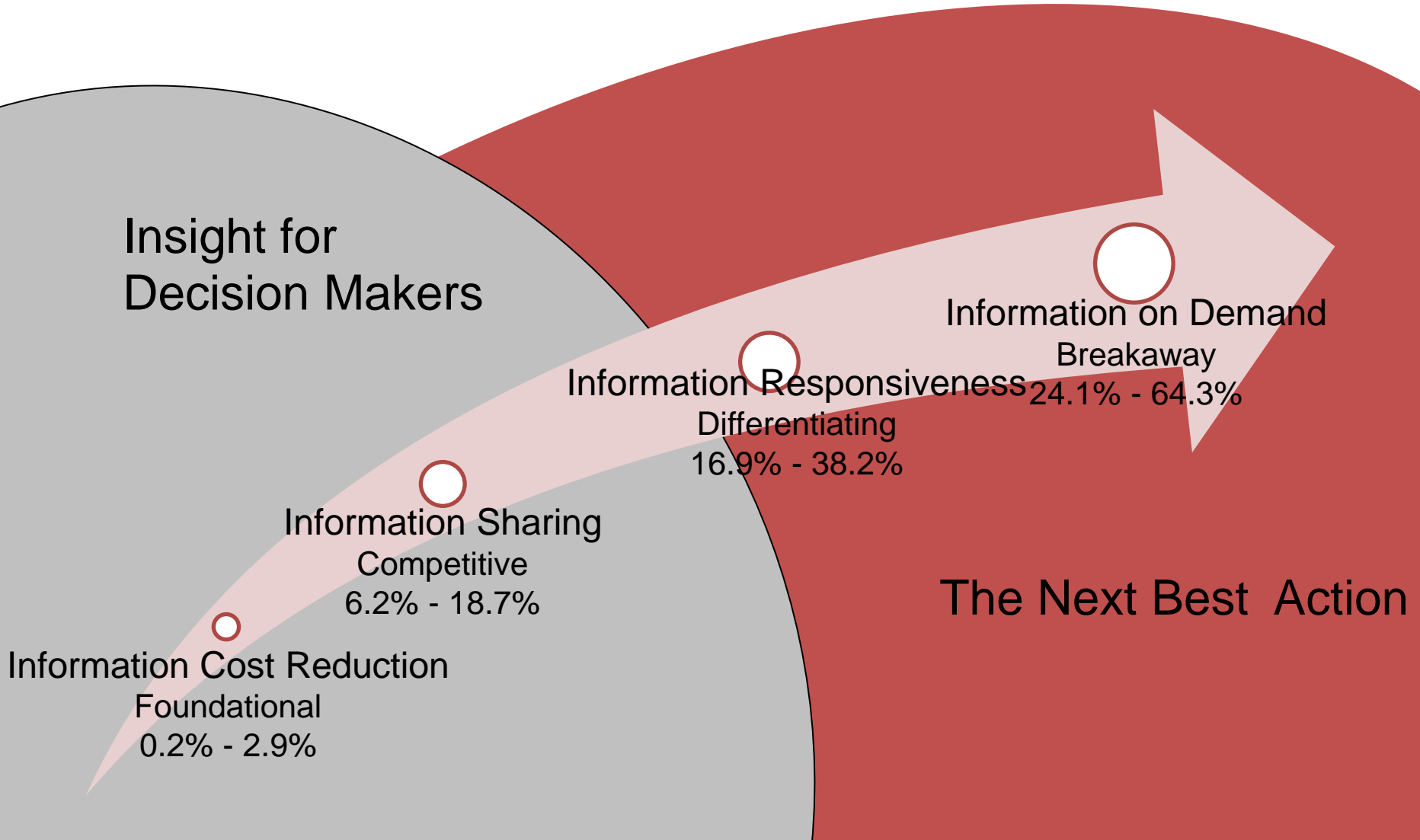
IBM Smarter Analytics Signature Solution

Next Best Action

Build long term customer relationships that drive enterprise business results—one interaction, one decision at a time

Solution overview

Deliver the most appropriate action at the right time across channels. Personalized interactions are enabled by:

- Comprehensive view of a customer
- Real-time analytics to anticipate customer behavior
- Cross-channel delivery of best action to address customer
  need and enhance long term business revenue

Solution benefits

- Improve service delivery and customer satisfaction
- Optimize revenue generating actions such as up sell, cross sell and retention
- Increase strategic lifetime value and loyalty

Business outcomes

- Communications company reduced customer churn by 15-20 percent

- Communications company increased client retention by 20 percent in two months

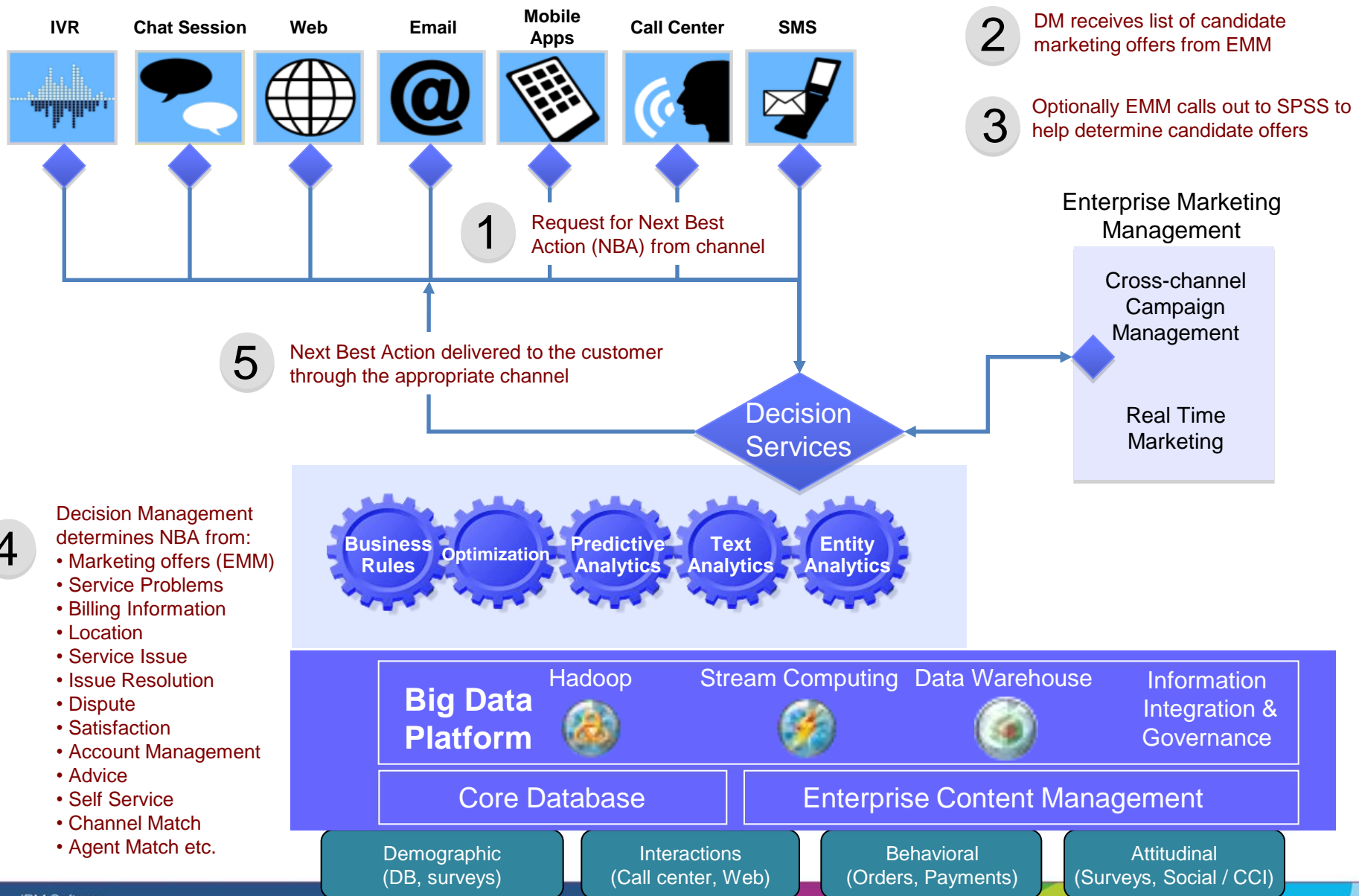- Insurance company increased agent retention by up to 40 percent

Telco   **Banking/FM**   **Insurance**

Next Best Action: Decision Process Flow

IVR

Chat Session

Web

Email

Mobile Apps

Call Center

SMS

2 DM receives list of candidate marketing offers from EMM

3 Optionally EMM calls out to SPSS to help determine candidate offers

1 Request for Next Best Action (NBA) from channel

Enterprise Marketing Management

Cross-channel Campaign Management

Real Time Marketing

5 Next Best Action delivered to the customer through the appropriate channel

Decision Services

4 Decision Management determines NBA from:
• Marketing offers (EMM)
• Service Problems
• Billing Information
• Location
• Service Issue
• Issue Resolution
• Dispute
• Satisfaction
• Account Management
• Advice
• Self Service
• Channel Match
• Agent Match etc.

Business Rules   **Optimization**   **Predictive Analytics**   **Text Analytics**   **Entity Analytics**

Big Data Platform   Hadoop   Stream Computing   Data Warehouse   Information Integration & Governance

Core Database   Enterprise Content Management

Demographic (DB, surveys)

Interactions (Call center, Web)

Behavioral (Orders, Payments)
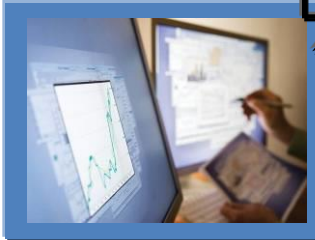
Attitudinal (Surveys, Social / CCI)

Example: Next Best Action for Telecommunications
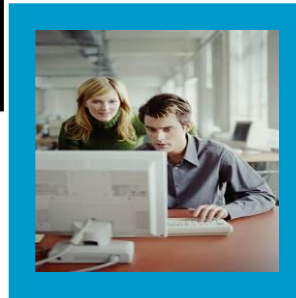
Operations

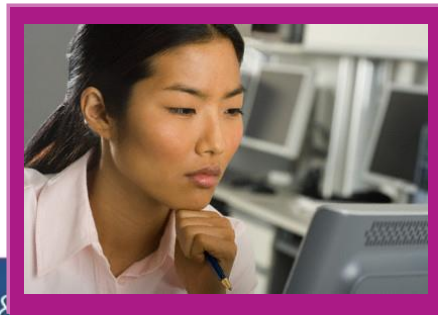Speaking with the customer

Analytics

Building predictive models

Defining the Next Best Action

Creating marketing offers

Information

Establishes the Information Supply Chain

THE CALL CENTER AGENT

Smart Call Center

Notifications

Alerts | **Actions**

Eligible for Offers

Likely to Churn

Customer Info

Name	Gender	Age	Id
Kevin Foster	Male	53	21
Education	**Marital Status**	**Location**	
Assoc Degree	Married	Map	

Customer Details

Find customer: 800-000-0021

Logout

IBM.

Notifications

Alerts | **Actions**

Eligible for Offers

Likely to Churn

Customer Info

Name	Gender	Age	Id
Kevin Foster	Male	53	21
Education	Marital Status	Location	
Assoc Degree	Married	Map	

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**

Update Case

Case Status by Month

Close
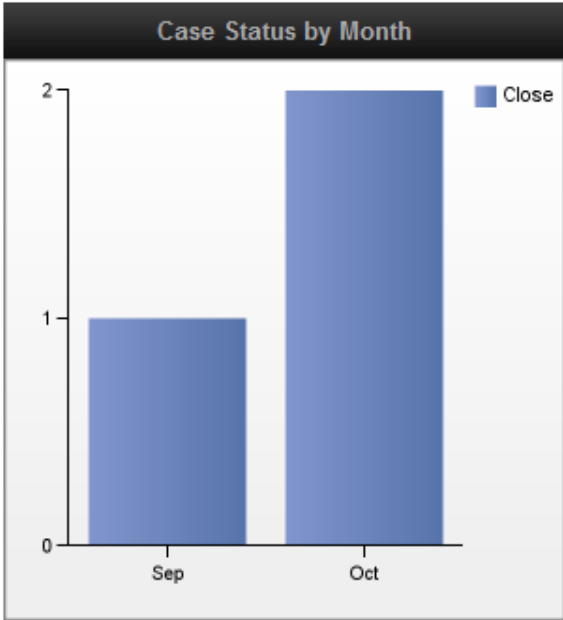
(Bar chart: Sep = 1, Oct = 2)

Month Opened	Case ID	Case Description	Case Status
Oct	26	GPRS Issue	Close
	15	Network Problem	Close
Sep	25	Handset Problem: microphone issue	Close

Trend	Tweet
○	I really want a Blackberry Bold... I still love my HTC though
↓	Ugh, my phone keeps getting disconnected
↓	Ok, now I'm getting really irritated. My phone dropped again!

DCI 2%

Notifications

Alerts | **Actions**

Eligible for Offers

Likely to Churn

Customer Info

Name	Gender	Age	Id
Kevin Foster	Male	53	21
Education	Marital Status	Location	
Assoc Degree	Married	Map	

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**

Churn Propensity

50%
25% 75%
0% 100%

☐ Churn Score

Customer Satisfaction

50%
25% 75%
0% 100%

☐ Satisfaction Score

Customer Lifetime Value (CLTV)

50%
25% 75%
0% 100%

☐ CLTV Ratio

Social Network Influence

50%
25% 75%
0% 100%

☐ Influencer ☐ Authority

Plan Details

Segment

PLATINUM

Contract

Freedom 60

Current Offer

Smart Call Center

Find customer: 800-000-0021 Logout

IBM
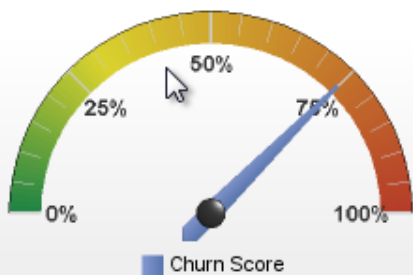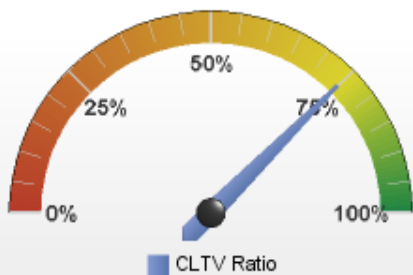
Notifications

Alerts **Actions**

Premium phone:64 MB media edition

Predicted Profit: $247.09

Submit Response

Customer Info

Name	Gender	Age	Id
Kevin Foster	Male	53	21
Education	Marital Status	Location	
Assoc Degree	Married	Map	

Customer Details

Profile **Usage** **Billing** **Case Detail**

Churn Propensity
50% 25% 75% 0% 100%
☐ Churn Score

Customer Satisfaction
50% 25% 75% 0% 100%
☐ Satisfaction Score

Customer Lifetime Value (CLTV)
50% 25% 75% 0% 100%
☐ CLTV Ratio

Social Network Influence
50% 25% 75% 0% 100%
☐ Influencer ☐ Authority

Plan Details
Segment
PLATINUM
Contract
Freedom 60
Current Offer

Find customer: 800-000-0021

Logout

IBM.

Notifications

Alerts | **Actions**

Premium phone:64 MB media edition
Offer Accepted

Submit Response

Predicted Profit: $247.09

Customer Info

Name	Gender	Age	Id
Kevin Foster	Male	53	21
Education	Marital Status	Location	
Assoc Degree	Married	Map	

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**

Churn Propensity

50%
25% 75%
0% 100%

Churn Score

Customer Satisfaction

50%
25% 75%
0% 100%

Satisfaction Score

Customer Lifetime Value (CLTV)

50%
25% 75%
0% 100%

CLTV Ratio

Social Network Influence

50%
25% 75%
0% 100%

Influencer Authority

Plan Details

Segment

PLATINUM

Contract

Freedom 60

Current Offer

Premium phone

Notifications

Alerts | Offers

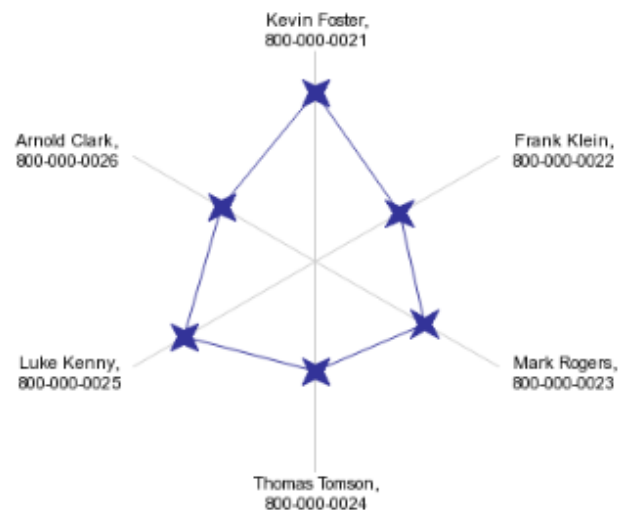Open Issues | Likely to Churn | Eligible for Offers

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**

Location Map

Top 5 in Social Network for Kevin Foster

Kevin Foster, 800-000-0021
Frank Klein, 800-000-0022
Arnold Clark, 800-000-0026
Mark Rogers, 800-000-0023
Luke Kenny, 800-000-0025
Thomas Tomson, 800-000-0024

Id	Name	Email	Contact
21	Kevin Foster	APOSTOL.RINABETH@msn.com	800-000-0021

Age	Gender	Education	Employment	Marital Status	Children
53	Male	Assoc Degree	Not currently employed	Married	no

Address
5 HUNTER LN CHARLOTTETOWN ,CHARLOTTETOWN,Canada

Find customer: 800-000-0023

Logout

IBM.

Notifications

Alerts | **Actions**

Free minutes
Predicted Profit: $40.52

Route to Level 1 support
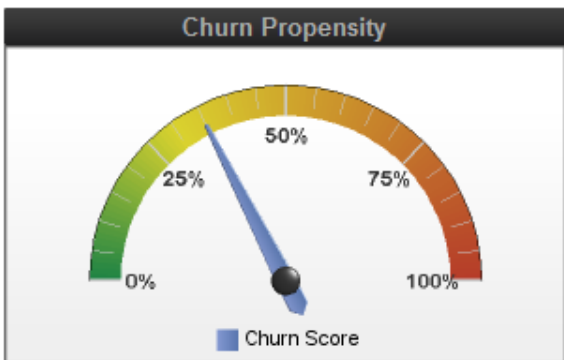Predicted Profit: $20.06

Submit Response

Customer Info

Name	Gender	Age	Id
Mark Rogers	Male	54	23
Education	Marital Status	Location	
Some College	Married	Map	

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**

Churn Propensity

50%
25% 75%
0% 100%
■ Churn Score

Customer Satisfaction

50%
25% 75%
0% 100%
■ Satisfaction Score

Customer Lifetime Value (CLTV)

50%
25% 75%
0% 100%
■ CLTV Ratio

Social Network Influence

50%
25% 75%
0% 100%
■ Influencer ■ Authority

Plan Details

Segment
SILVER

Contract
Freedom 45 Combo

Current Offer

Smart Call Center

Find customer: 800-000-0025

Logout

IBM.

Notifications

Alerts | **Actions**

Update 5 friends

Predicted Profit: $55.21

Submit Response

Customer Info

Name	Gender	Age	Id
Luke Kenny	Male	50	25
Education	Marital Status	Location	
High School Grad	Married	Map	

Customer Details

Profile | **Usage** | **Billing** | **Case Detail**
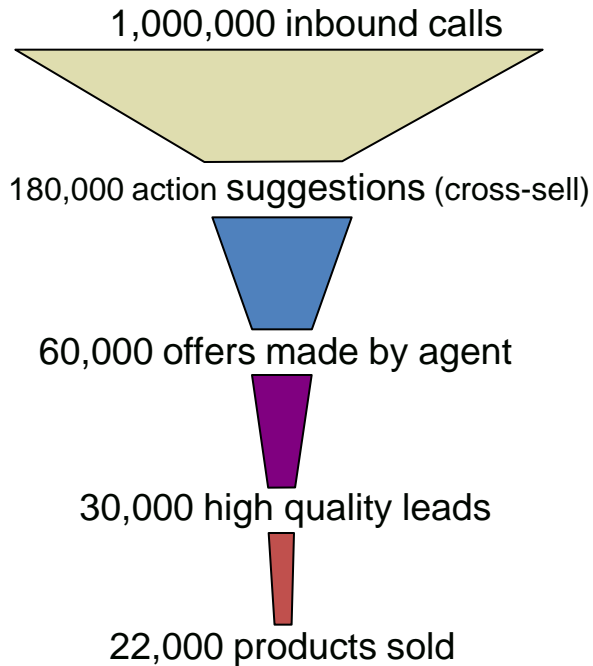
Update Case

Case Status by Month

Open

Month Opened	Case ID	Case Description	Case Status
Oct	90	Customer complained about dropped calls. Offered to lower bill by updating 5 friends list to match most frequently dialed numbers.	Open

Cross-selling in the call center: 1st Year Results

AEGON

1,000,000 inbound calls

180,000 action suggestions (cross-sell)

60,000 offers made by agent

30,000 high quality leads

22,000 products sold

Over €30M additional sales in the call center

- IBM provided software and services to help AEGON implement IBM Predictive Analytics software for SCI across all channels:
  - Call Center, Voice Response
  - Outbound marketing
  - Web site
  - Intermediaries

orange
& france telecom

- By integrating customer, network and product/services data, then analyzing breakdowns in service that affected large numbers of customers, France Telecom is able to identify and predict service outages.

- When customers do call about service issues, the reps can provide them a clearer picture about the problem and expected resolution timeframe

- *Applied to fixed line / internet / TV*
  - *Eliminated 25,000 calls per week about unexpected outages*
- *Now applying to mobile business*

- IBM assisted France Telecom by providing
  - Predictive Analytics software to complement their existing analytics environment
  - Systems integration by IBM