Accenture Analytics
SAS Forum 2014
Linking Analytics to High Performance

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Agenda

1. High Performance Analytics Study
2. SAS – Modernization
3. Case - Next Best Action
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Accenture-MIT High Performance Analytics Research: Research Objectives and Methodology

Research Objectives

• Identify High Performance Businesses and determine the relationship with Analytics Performance
• Identify the correlation between Performance and analytics capabilities, investments, practices, technology, etc.
• Determine differences in what is important regarding analytics at the industry and country level
• Report on what High Performers do differently with regard to analytics and how they achieve business outcomes

Methodology

• Survey of 864 analytics executives (global and cross-industry) regarding analytics practices, capabilities, investments and performance
• Use HPB data to identify companies in the survey where we have HPB “scores” (n=200+)
• Link HPB to Analytics performance and create a model (HPBe) to estimate HPB using survey questions; use estimator HPBe to classify high performers
• Compare High Performers to Low Performers and identity practices where they are similar and where they differ significantly
High performers demonstrate an ongoing ability to make faster and smarter decisions about business issues, and reap tangible results.

| 1. Commit to Analytics | • High performers “walk the walk”; True commitment in terms of time and focus  
|                         | • Elevate analytics to the c-level within the organization (e.g., Chief Analytics Officer)  
|                         | • Invest significantly more in enabling capabilities |
| 2. Deploy a Multi-Pronged Talent Strategy | • Invest in talent planning and development for their existing analytical resources  
|                                          | • Recruit new talent from leading university programs  
|                                          | • Partner with external analytics providers to scale their capabilities |
| 3. Use Technology to Innovate, Enable, and Accelerate Insight | • Operate differently (“Think Big, Start Small and Scale Fast”)  
|                                                               | • “Fit for purpose” technology  
|                                                               | • More diverse tools and techniques to solve harder problems |
| 4. Acutely Focus Analytics on Decisions that Improve Business Results | • In the data to insights journey, high performers focus on connecting decision making with business outcomes  
|                                                               | • Low performers start with the data without clear line of sight to outcomes |
| 5. High Performers Have Moved Beyond Big Data | • Analytics not viewed as a Big Data or technology challenge; viewed as a change management challenge  
|                                           | • Focus on embedding analytics in critical business decisions  
|                                           | • Emphasis on increasing certainty of analytics delivering tangible outcomes |

Source: Accenture/MIT High Performance Analytics Study, May 2014
High Performers are more than twice as likely to have a strong analytics decision support capability and to embed analytics in decision processes.

<table>
<thead>
<tr>
<th>Analytics Capability for Decision Making</th>
<th>Embed Analytics in Decision Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics are being used to identify growth opportunities</td>
<td>Monitor decisions and course-correct to fix any problems (closed loop)</td>
</tr>
<tr>
<td>94%</td>
<td>84%</td>
</tr>
<tr>
<td>44%</td>
<td>32%</td>
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<tr>
<td>Analytics are expanding into strategy and high-level decision making</td>
<td>Embed predictive analytics into key business processes (e.g., predicting fraudulent claims before payment)</td>
</tr>
<tr>
<td>92%</td>
<td>79%</td>
</tr>
<tr>
<td>48%</td>
<td>34%</td>
</tr>
<tr>
<td>Our analytical capabilities are a key element of our business model and/or strategy</td>
<td>Foster a culture of experimentation and testing using analytics across the business</td>
</tr>
<tr>
<td>91%</td>
<td>81%</td>
</tr>
<tr>
<td>46%</td>
<td>25%</td>
</tr>
<tr>
<td>Analytics is central to our company’s products and services</td>
<td>Integrate external and internal data in a robust fashion to provide fact-base for decision making</td>
</tr>
<tr>
<td>89%</td>
<td>82%</td>
</tr>
<tr>
<td>45%</td>
<td>32%</td>
</tr>
<tr>
<td>Most important decisions in my company are based on data and analysis</td>
<td>Empower decisions at lower levels in the organization powered by analytics</td>
</tr>
<tr>
<td>90%</td>
<td>75%</td>
</tr>
<tr>
<td>39%</td>
<td>24%</td>
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<tr>
<td>Analytics are being driven cross-functionally into the organization to deliver value</td>
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<tr>
<td>87%</td>
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<tr>
<td>40%</td>
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<tr>
<td>The C-level is aggressively setting and supporting the analytics agenda</td>
<td></td>
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<tr>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>37%</td>
<td></td>
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</tbody>
</table>

Source: Accenture/MIT High Performance Analytics Study, May 2014

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The inability to implement a good decision is fundamentally a change management issue. More High Performers set their sights on business outcomes and are more likely to achieve them.

Main reasons that inhibit implementation of a good decision

<table>
<thead>
<tr>
<th></th>
<th>Communications</th>
<th>Consumer Goods</th>
<th>Insurance</th>
<th>Retail Banking</th>
<th>Energy</th>
<th>Health</th>
<th>Retail</th>
</tr>
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<tbody>
<tr>
<td>Internal Resistance</td>
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<td>Functional Silos</td>
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<td>Lack of Incentives</td>
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<td>Lacking systems and/or</td>
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<td>tools to implement</td>
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<td>Budget</td>
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<td>Personal risk</td>
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<tr>
<td>Resources Capacity</td>
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<tr>
<td>Inability to change</td>
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<tr>
<td>Lack of perceived authority</td>
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<tr>
<td>No Burning Platform</td>
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</tr>
</tbody>
</table>

Source: Accenture/MIT High Performance Analytics Study, May 2014
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High Performers are able to realize outcomes better using analytics

**The Analytics Journey to ROI**

**Low Performers**

Focus on Data to Insights
- Only one in five **invest** at a high level in analytics and only one in 10 expect this to increase significantly in the next three years
- Less than half manage **talent** from end-to-end; just over half use a multi-faceted approach; few are willing to acquire talent
- Only one in five use seven or more **types of data** in their analysis; less than half use **advanced analytical techniques**
- One third or fewer embed analytics into the decision **process** and struggle with decision making

**High Performers**

Focus on Insights to Actions
- The majority **invest** considerably in their analytical capability and this is expected to significantly increase over the next three years
- Nearly all manage **talent** from end-to-end and four out of five source talent using a multi-faceted approach; more than twice as many high performers are willing to acquire talent compared to low performers
- Majority use seven or more **types of data** in analyses; four out of five use **advanced analytical techniques**
- Four out of five embed analytics into the decision **process**

90% or more High Performing companies are satisfied with the contribution analytics has made to financial performance, strategic direction, addressing growth opportunities, informing critical decisions and managing risk, compared with 39% of low performers (on average)

Source: Accenture/MIT High Performance Analytics Study, May 2014

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Value can be achieved in many ways – here are the key themes observed from other clients in undertaking a successful analytics journey.

- Initiate data discovery, even if data is incomplete
- Focus on business value / ownership
- Define and apply a single view of the customer

- Iterate - ideate - test - prove - industrialize
- Follow approaches that support speed to market and sustainability
- Embed in decision making

- Invest in multi-channel capability in stages
- Focus on the last mile - role based consumption
Agenda

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3. Case - Next Best Action
Big Data

- Grid & In Memory Computing
- New Revenue
- Better Models
- Performance Productivity
- Questions on Big Data Answered in 30 Min
- Room for More Variables
Examples

Modernization

- SAS Release
- Product portfolio
- New analysis paradigms

SAS Software

- 9.xx → 9.4
- EM 12.1 → 13.2
- EM-Server → HPDM
- VA + VS
- In-Memory Statistics for Hadoop
- Analysing previously “untouchable” data
DECISION FACTORY

ANALYTICS + BUSINESS RULES + GOVERNANCE = DECISION FACTORY
IF Probability_Bad_Credit >= 0.75

THEN Send_Campaign_Offers="NO";

ELSE Send_Campaign_Offers= "YES";

Implementing flexible business logic

- No hard coding of knowledge
- Up to date logic and flows
- Rules not hidden from business
Governance

- Identify / Formulate Problem
- Data Preparation
- Data Exploration
- Transform & Select
- Validate Model
- Build Model
- Deploy Model
- Evaluate / Monitor Results
Summary

Accessing and preparing data
- A unified framework
- Standardisation on tools and processes

Building and validating predictive models
- Improved utilisation of data
- State of the art modelling
- Efficient model development
- Models compared and challenged

Implementing flexible business logic
- No hard coding of knowledge
- Up to date logic and flows
- Rules not hidden from business

Monitoring and administrating the entire process
- Performance monitored over time
- Model freshness assured
- Collaboration between departments
- Shorter time to decision!
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NBA (Next Best Action)

What is NBA?

Next-best-action marketing, as a special case of next-best-action decision-making, is a customer-centric marketing paradigm that considers the different actions that can be taken for a specific customer and decides on the ‘best’ one.

The Next Best Action (an offer, proposition, service, etc.) is determined by the customer’s interests and needs on the one hand, and the marketing organization’s business objectives, policies, and regulations on the other.

This is in sharp contrast to traditional marketing approaches that first create a proposition for a product or service and then attempt to find interested and eligible prospects for that proposition.
Next Best Action (NBA)

The Next Best Action approach is customer centric and uses the call context, customer information and set of business rules to determine the **one or many** offers for which the customer is eligible for, at the moment of interaction. These are prioritized and optimized to propose the best offer to the customer.

**NBA PRIORITIZATION FORMULA**

\[ S = V \cdot CW\% \cdot OW\% \cdot P\% \cdot AP\% \]

- **S** = priority score
- **V** = offer value
- **OW\%** = offer weight
- **CW\%** = context weight
- **P\%** = Propensity
- **AP\%** = Adjusted Potential

**One Customer**

**Many Offers**

**Prioritized Offers**

**Propose top to Customer**

The CSR receives a prioritized list of offers to propose to the customer.

- **1** Offer C
- **2** Offer A
- **3** Offer D

- **Business rules drive** the list of offers for which the customer is eligible for at the given moment in time.
- **Customer may be eligible** for one or many offers.

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**Customer Strategy**
- Customer targets
- Business objectives (e.g. minimize revenue dilution for retention and maximize profit on up/sell set)
- Eligibility
- Contact policy
- Agent Skills

**Customer’s Insight**
- Segment
- Behavioral patterns
- P/S activations
- Churn risk
- Contact history

**Context**
- Call reason
- Visit reason

**Solution components**
- Mobile Customer
- Call Center
- Officess
- BI
- CRM
- DWH

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**Prioritized Offers**

- Offer A
- Offer B
- Offer C
- Offer D
- Offer E
**Innovative approach to Campaign Management transformation leveraging SAS IMM platform—Italian Telco example**

**The Business Challenge**

*The challenge for this global/Italian telco client was three-fold:*  
1. Design the NBA offer catalogue,  
2. Choose the customer segments to be targeted by each offer  
3. Identify the most appropriate offer for each customer

**The Situation**

Has been working with implementing NBA for 1.5 years, starting from consumer mobile segment  
The solution is based on the SAS RTDM technology and is integrated with existing channels (Call Centers, IVR, portals/app, retail)  
The solution has been launched in call-centers in April 2013, rollout completed in November 2013  
NBA implemented in consumer fixed and SME fixed and mobile segments in 2014

**The Results**

- Increase in customer acquisition rate: 10 – 30%; lift per campaign: 10 – 250%; increase in customer value: 5 – 15%  
- 36 mln incremental revenues (3 years)  
- New designed offer catalogue, identified the customers to be considered for each offer proposition  
- Prioritization of the offers for each customer getting in touch with all inbound channels and supported agents to make appropriate propositions

- Offer Catalogue  
- Detailed Profiles of Customer micro-segments  
- Decisioning Thresholds  
- Volumetrics
The Customer has significantly changed Campaign Management processes leveraging on innovative SAS Integrated Marketing Management platform

**Solution Schema**
Solution is based on implementation of a customer centric view (Customer DB) and parametric engine for NBA & Campaign leveraging SAS suite (SAS RTDM, SAS MA, SAS MO)

- **Program Objectives**
  - Value generation during inbound contacts
  - Enhanced customer experience

- **HL Program Plan**
  - About 2 years, 2 projects, 5 drops (3 for mobile, 2 for fixed CB)

- **Main Results**
  - Campaign Design and Execution Simplification, from weeks to hours
  - Integrated Single View of Customer and enablement of X-sell actions
  - 3M+ inbound contacts managed, 600+ treatments
  - 500ms SAS RTDM response time
  - 4000+ CC agents trained
The Business Challenge

The challenge for this Nordic telco client:
1. Increase customer experience and identify upsell opportunities,
2. Provide offers based on propensity models for whole population and value
3. Identify the right segment and the most appropriate offer for each customer

The Situation

Has been running an NBA project for 2 years
The solution is based on the SAS RTDM technology and integrated with existing back-end and front-end systems
The project launched NBA in call-centers in October 2013 and is planning to further expand the solution retail and web
NBA is implemented in mobile, fixed and xDSL (only consumer segments)

The Results

- Increase in customer acquisition rate: 10 – 30%; lift per campaign: 10 – 250%; increase in customer value: 5 – 15%
- Provides inbound touch points with a marketing recommendation engine to drive additional revenues and consistent customer experience
- Product oriented segmentation. ~240 target groups with selected offers that are scored and ranked against each other
The two examples have different approaches for segmentation and offer scoring

Nordic Telco’s segmentation and offer development approach

1. Divide customers into product holding groups
2. Assign customers to potential target groups
3. Strategic prioritization of customer into one target group
4. Mapping of offer sets for each target group
5. Offer scoring based on propensity models (whole population) and value

Italian Telco’s segmentation and offer development approach

1. Divide customers into three value segments
2. Assign offers to each segment
3. Run decisions trees on all offers relevant for the given segment
4. Offer scoring based on value and redemption rate
Q&A

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Stockholm 2014
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