

Smarter Decisions. Better Results

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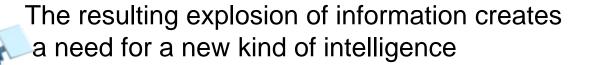
The World is Changing and Becoming More...



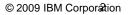








Business Analytics & Optimization



"Business analytics is the key to enabling our clients to turn oceans of data into predictive models and actionable decisions."



Better outcomes

Smarter decisions

Actionable insights

Relevant information





The IBM Centennial







smarter enterprises can...

Increase agility

...rapidly respond to opportunity

- Precise customer contribution margins
- Reduced operating costs





Higher case closings Improved officer case

- and resource allocation





smarter enterprises can...

Reduce the time to prepare monthly MIS reports from 8-10 days to just 2 days

ASSET MANAGEMEN

 Sales information is now available on a daily basis with the result that the organization can drive business growth more effectively and can respond to emerging market conditions with greater agility





A Global Luxury Car Manufacturer

What if you could gather data for product improvement in real time – even after your products were sold? A global luxury car manufacturer is enhancing its fleet, cutting costs, and improving customer satisfaction through real-time data capture of its post-sale vehicles.

The Opportunity

The company's existing processes for collecting data on how its vehicles were performing in the field, post sale, were piecemeal. This made it extremely difficult to derive the insights necessary for genuine, customer-focused improvements in product design. The company needed to find a better way to generate these strategic insights.

What Makes It Smarter

The premium sector of the global automotive market is extremely competitive, and maintaining the highest levels of quality is essential. The company found a solution that allowed it to gather real-time data from vehicles, repair operations and factories worldwide, which could then be structured and analyzed to identify relations between product/process metrics and their effects on quality. Data is no longer considered in isolation but holistically, so it provides new insights previously not available. These are immediately channeled back as actionable intelligence leading to design improvements. The results: lower error rates, decreased costs, and reduced customer visits to repair shops – a vital metric for improving customer satisfaction.

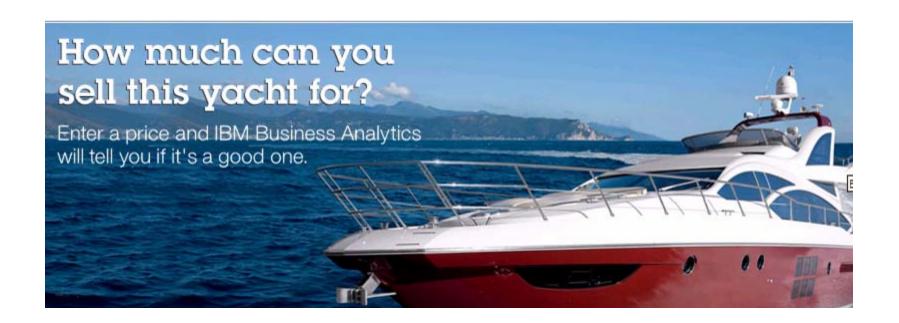
Real Business Results

- Reduced instances of repeat repair
- Increased customer satisfaction.
- Provided completely new insights that fed back into the vehicle production processes

Solution Components

IBM SPSS® Modeler data mining and text analytics

"By providing real-time, actionable data and analysis, our analytics system directly helps us maintain and enhance our status as a premium provider of automobiles."



IBM Business Analytics Software takes the guesswork out of business decisions. So not only can you determine the right price for a boat, you can decide how many to buy, where to sell, and more. MarineMax®, the world's largest boat retailer, started using IBM Cognos software to inform their inventory decisions. As a result, their demand planning cycle dropped from 3 months to 3 weeks, leading to a 48% reduction in costs. William H. McGill, Jr., the chairman of MarineMax, said, "We could not run our business without Cognos." With IBM Business Analytics, you can make better decisions for your business too.





#1

CIOs chose Business Intelligence and Analytics as the #1 most important visionary plan element – IBM Global CIO Study, September 2009

Organizations that lead in analytics outperform those who are just beginning to adopt analytics by 3x - MIT Sloan Management Review and IBM Institute of Business Value, 2010

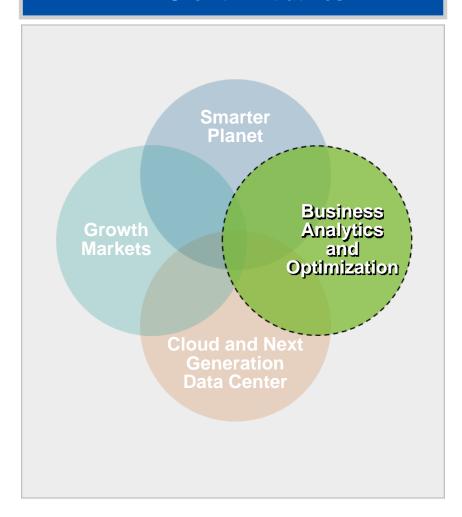






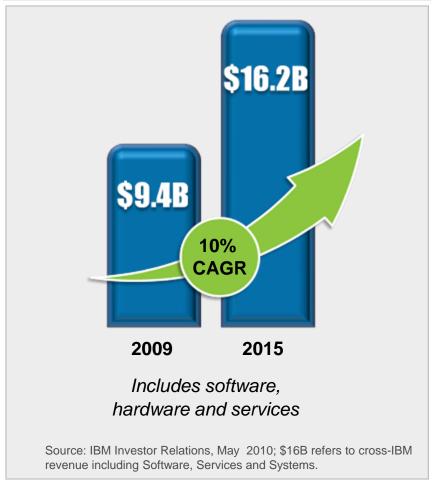
Business Analytics and Optimization is a top IBM priority

IBM Growth Initiatives



BAO Revenue

(including SW, HW and services)







IBM has strong capabilities in Business Analytics Optimization

Services

BAO Strategy

Business Intelligence & Performance Management

Advanced Analytics and Optimization

Enterprise Information Management

Enterprise Content Management

GTS MBPS (Redpill)

- Over 7,700 BAO practitioners
- 8 Analytic Solution Centers
- Business Value Accelerators

Software & Systems

Cognos

SPSS

Infosphere, MDM and Information Server

ECM/FileNet

iLog

Workload Optimized Systems IBM Smart Analytics System (ISAS) & Power7, Netezza

Over \$14B in software investments and acquisitions

IBM Research

FOAK

Research Advisors

Analytics Patents

Analytic Research Assets

- 10 years of services research
- Largest math department in private industry









- Major technological advances are reshaping business, government and society.
 Technology has become ubiquitous and data is expanding exponentially (variety, velocity, volume)
- The CIO is growing more critical to organizations across the globe
- CFOs are taking a more prominent role in enterprise decision making
- CEO and CIO studies agree on how critical it is for today's organizations to derive insight from the huge volumes of data being amassed across the enterprise, and turn those insights into competitive advantage with tangible business benefits





Leverage mandate CIO

"I have no idea how many applications we have, thousands maybe, but we have to clean up this mess."

Expand mandate CIO

"Generally speaking, data is underutilized at our company. We really need to focus more on viewing data holistically versus a 'shotgun approach.' "

Transform mandate CIO

"Now everyone is interested in everyone else; we are going to exchange a lot of information among organizations in the ecosystem."

Pioneer mandate CIO

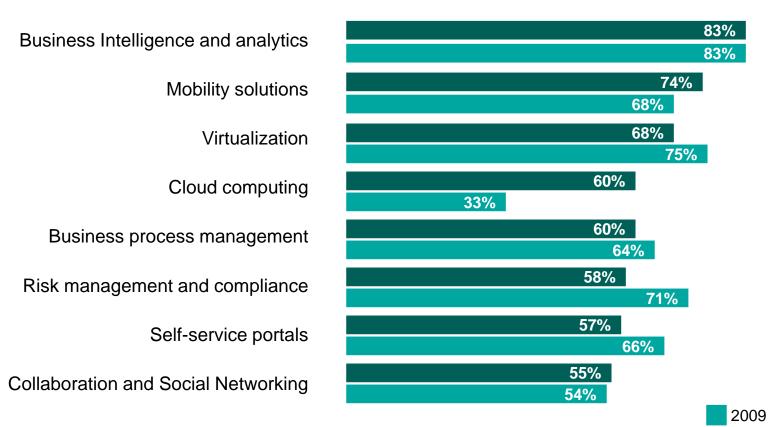
"We think we have something to gain from social networks, but we're not mature enough yet to know what and how."



CIO visionary plans are evolving

Most important visionary plan elements

(Interviewed CIOs could select as many as they wanted)



Source: 2011 CIO Study, Q12: "Which visionary plans do you have to increase competitiveness over the next 3 to 5 years?" (n=3,018)





2011

Analytics demand is driven by five key areas



Enhance Customer Understanding to Enable Profitable Growth

- Customer Churn
- Marketing Spend
- Sales Productivity



Drive Real-Time Decision Optimization

- Trading Advantage
- Health Monitoring



Foster Informed / Collaborative Decision making

- Customer Service
- Channel Management
- Loan Origination



Enable Enterprise and Operational Visibility

- Risk Management
- Demand Visibility
- Fraud Protection
- Strategy Alignment



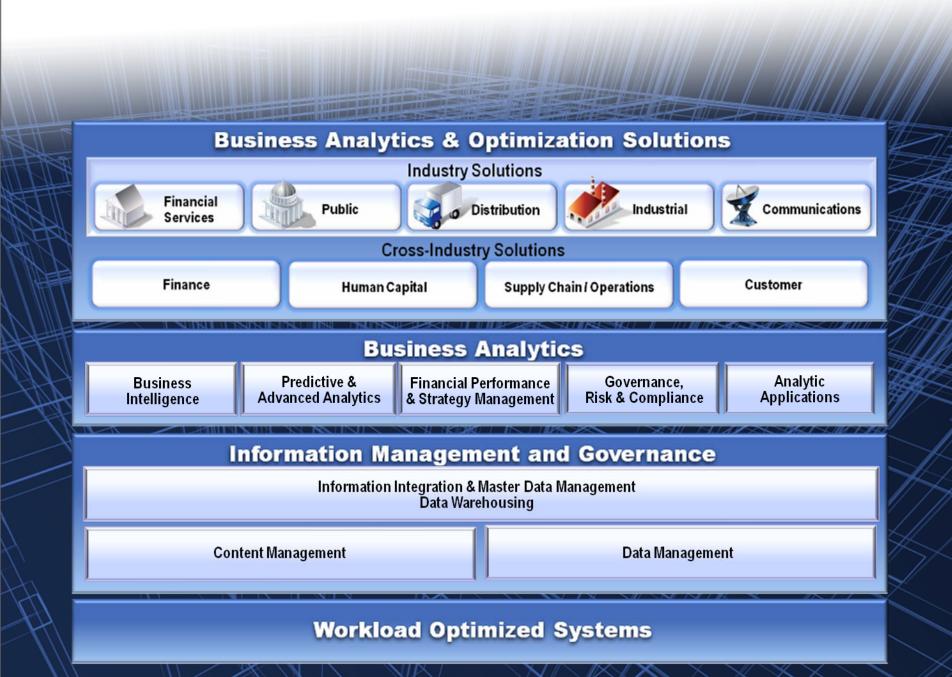
Building a Strategic Information Management Foundation

- Real-time / Trusted Information
- Single View of the Customer

- Information Governance
- Big Data / Streaming Data









Business Analytics



Predictive & Advanced Analytics Financial Performance & Strategy Management

Governance, Risk & Compliance

Analytic Applications



Full breadth of BI for every decision-maker

- Query, reporting, analysis, scorecards and dashboards
- Delivered where, when and how needed
- Author once, consume anywhere

Revolutionary way to work with BI

- Unified workspace with built-in collaboration
- View of all time horizons: past, present & future
- Easy progression from viewing to exploration to more advanced analysis

Free to answer critical business questions

- Answer "how am I doing", "why", and "what should I be doing?"
- Ensure organization-wide insight and alignment





Cognos 10

Freedom to Think, Connect with Others and Simply Do







Unified workspace with greater power, intuitive navigation and cleaner look

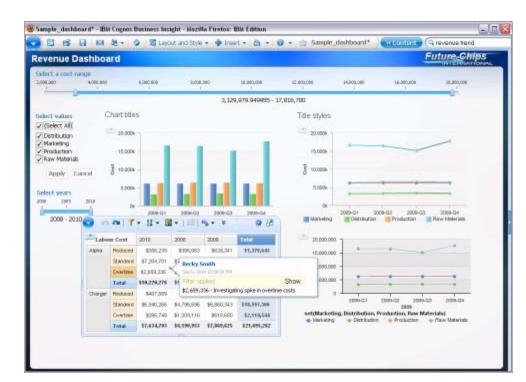
Intuitive and easy to use, it is the single place that you go to find answers to key business questions

IBM Cognos Business Insight

Solution Highlights

- Pre-assembled workspace content
- Search assisted authoring
- Drag and drop assembly
- Dynamically filter
- Quicker and deeper insight into data
- Seamless graduated experience
- Open Heterogeneous Data/Platform
 IBM Software

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Breadth of analytics across historical, real-time and predictive information



Unified Workspace delivering breadth of analytics





Analytical Reporting

Real-Time What is

Scenario Modeling What-if

Advanced Analytics
What might be

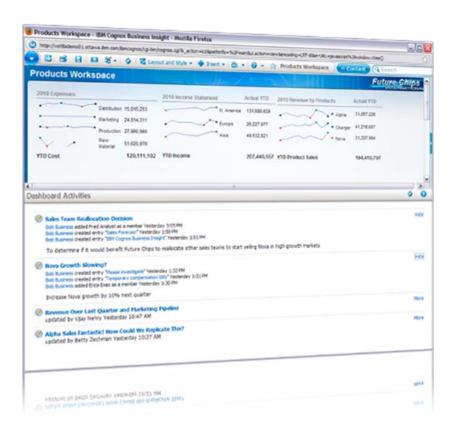
IBM Software

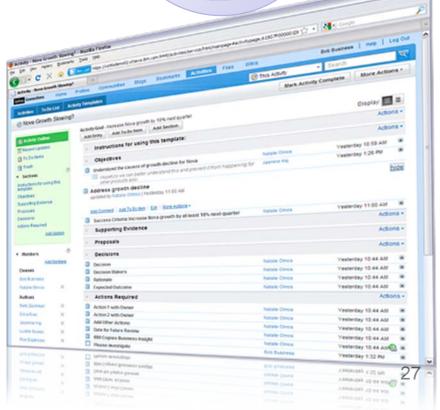
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IBM Cognos Collaboration

Built-in Collaboration

Accelerate alignment and improved decision making









Available to everyone when, where and how needed





Mobile

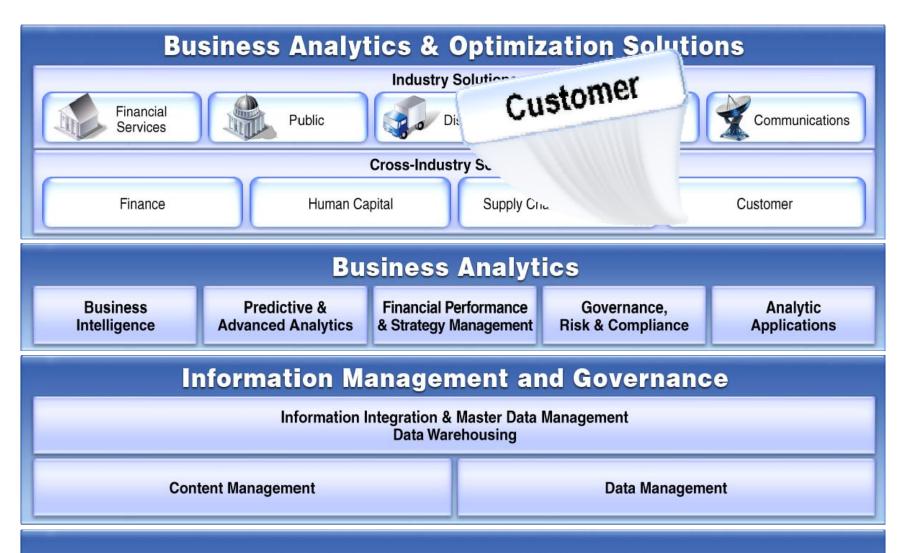
- Full BI interactivity including drill up/down/through
- Scheduled reports for immediate access to key content
- iPhone, iPad, BlackBerry, Windows Mobile, Symbian

Disconnected BI

- Self-contained, interactive content
- Offline BI application, fun and fast
- Easy delivery to wide audiences







Workload Optimized Systems



Predictive & Advanced Analytics

ss Analytics

Business Intelligence Predictive Advanced Analytics

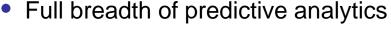
Financial Performance & Strategy Management

Governance, Risk & Compliance Analytic Applications



Real-time automated decisions





- data collection, statistics, data mining, predictive modeling, deployment services...
- Putting prediction in hands of the business
 - Decision Management
- Driving better business outcomes
 - Attract and retain more profitable customers
 - Detect and prevent fraud
 - Improve resource allocation



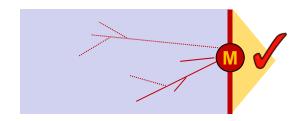
Internal & External Data



The Predictive Advantage

Predictive Models

- Leverage current and historical data
- Make robust predictions on current and future cases
- Provide "actionable insight" to drive better decisions



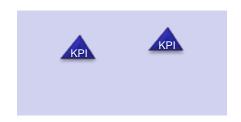
Predictive Analytics:

- Algorithms automatically discover significant patterns
- "Learn" from historical data create *predictive models*



Traditional BI and Conventional Analysis:

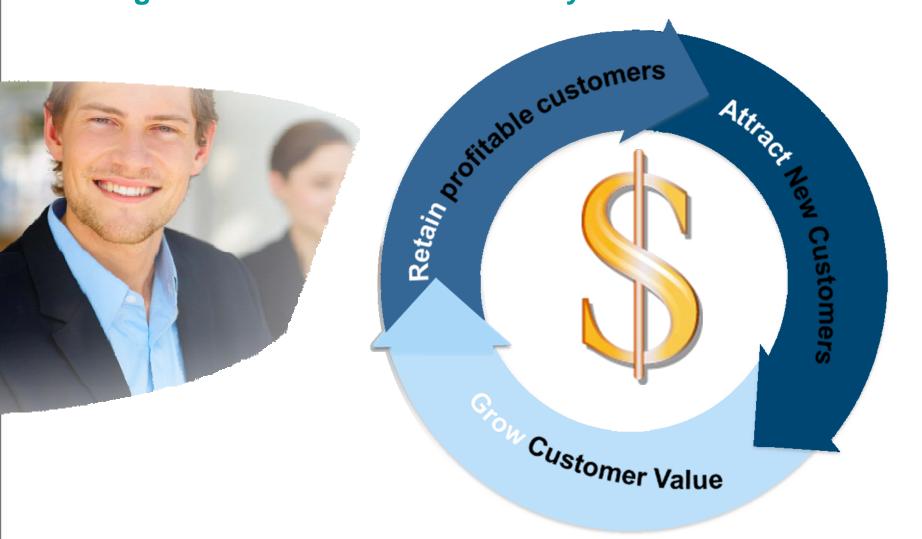
- Insight, metrics, etc. up to this point in time
- User initiative to explore data







Growing Revenue with Customer Analytics







Business Scenario: Retail market basket analysis



Market basket insights

- If A then B
- If C then D
- If E and F then G
- If H, then H then I



Transactions from all customers





Business Scenario: Retail market basket analysis



Market basket insights

- If A then B
- If C then D
- If E and F then G
- If H, then H then I



Transactions from all customers







Business Scenario: Retail market basket analysis



Market basket insights

- If A then B
- If C then D

% \$

% \$

- If E and F then G
- If H, then H then I



Transactions from all customers



773 9245



- - 12



Statement insert

- 3



Offers

- Gillette razors
- L'Oreal shampoo
- House brand shampoo
- % \$ House brand hair color
- % \$ Colgate toothpaste
- % \$ Nivea skin care
- % \$ Men's fragrance
- % \$ Woman's fragrance
- % \$ House brand sun care
- % \$ Optician
- % \$ Feminine hygiene
- % \$ Online photo service
- Family planning % \$
- % \$ Pampers diapers
 - House brand diapers



Transactions from this customer

- Cardholder since YYYYMM
- · Average transaction value
- Monthly transaction value
- · Categories purchased
- Brands purchased

Descriptive

- Age
- Gender
- Family situation
- Zip code



- Web registration
- Web visits
- Customer service contacts
- Channel preference

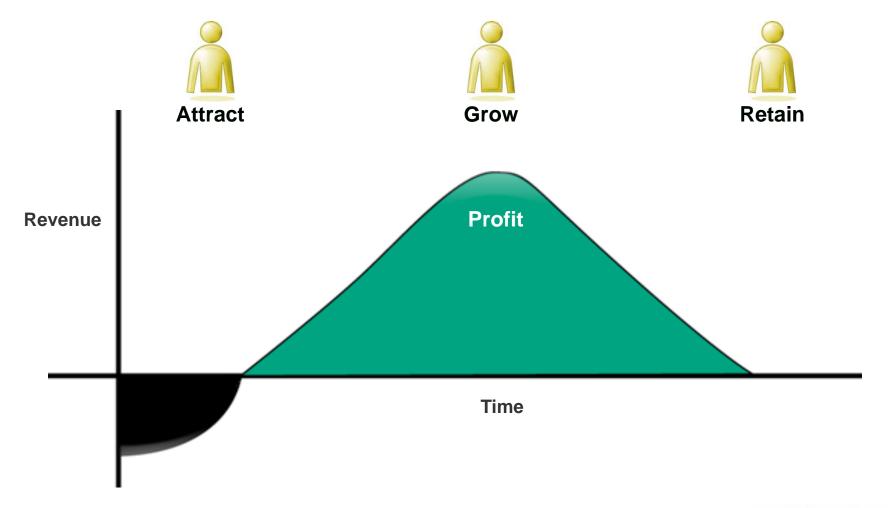


- Satisfaction scores
- Shopper type





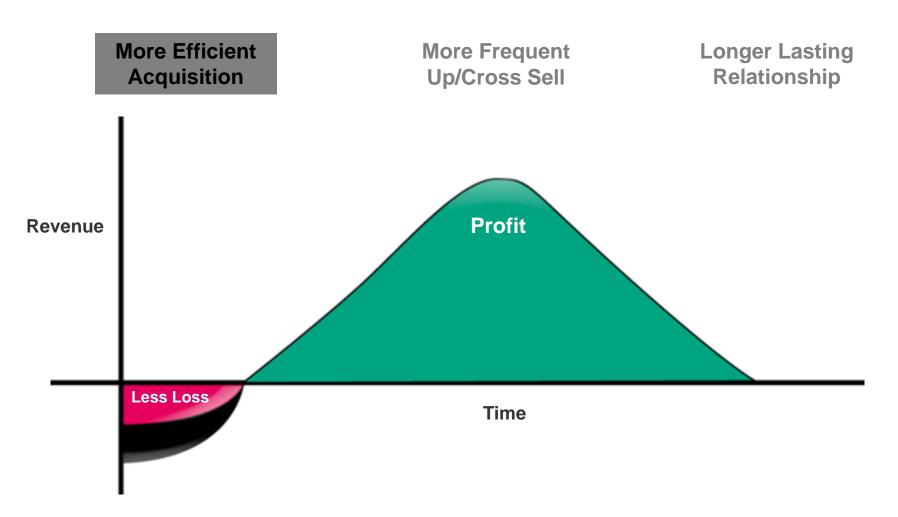
Predictive Analytics for CRM







Predictive Analytics for CRM







"ATTRACT"

Leading Financial Group

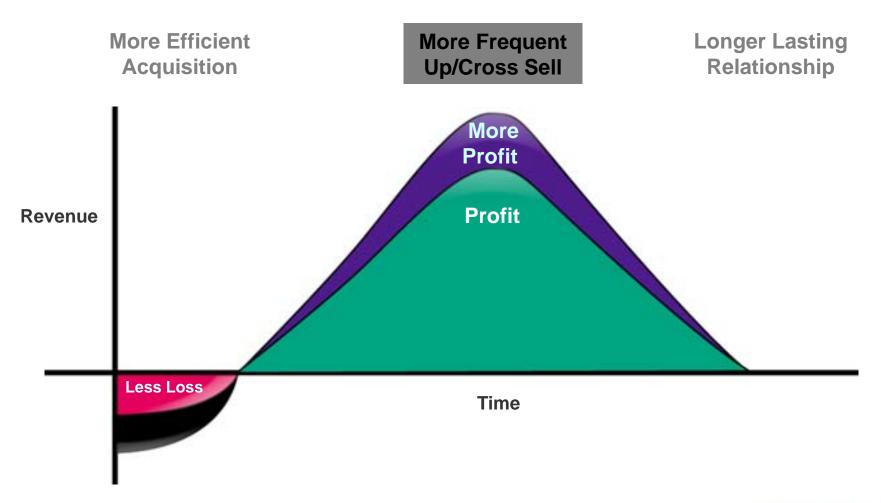
Analyzed response to remortgage offer from bank subsidiary, applied model to Group customers and prospect base

- Model produced 9x increase in response rate
- •Single campaign secured \$50M of mortgage application revenue





Predictive Analytics for CRM









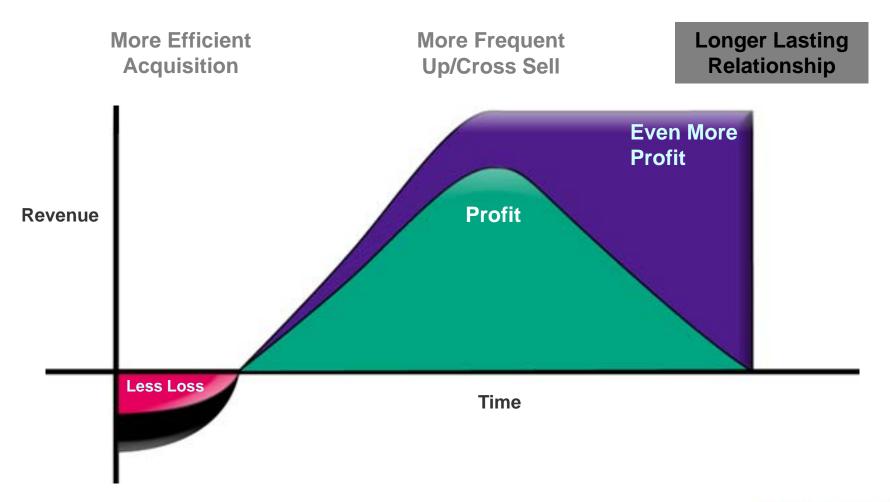
Major European Insurer

Added predictive cross-selling capability to service call center

- •€30M in new sales in first year
- Better than 1-in-3 conversion rate
- No overhead in 94% of calls



Predictive Analytics for CRM









Private Bank, Portugal

Used predictive models to identify high net worth customers at risk of defection, targeted with preferential treatment

•In one year, improved retention resulted in a 10-20% increase in the bank's overall profits

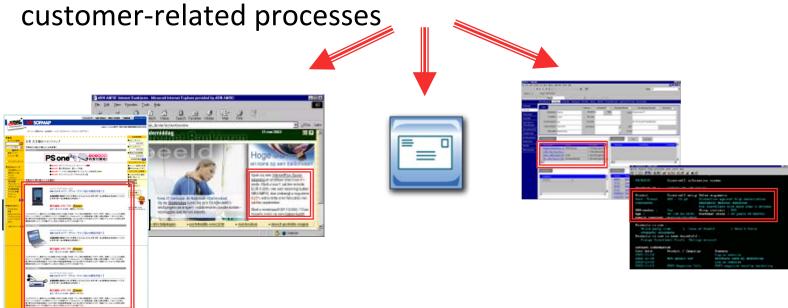




Acting On Analysis

- Combine analytical results with business knowledge
 - Rules, Policies, Exclusions/Inclusions, Constraints...

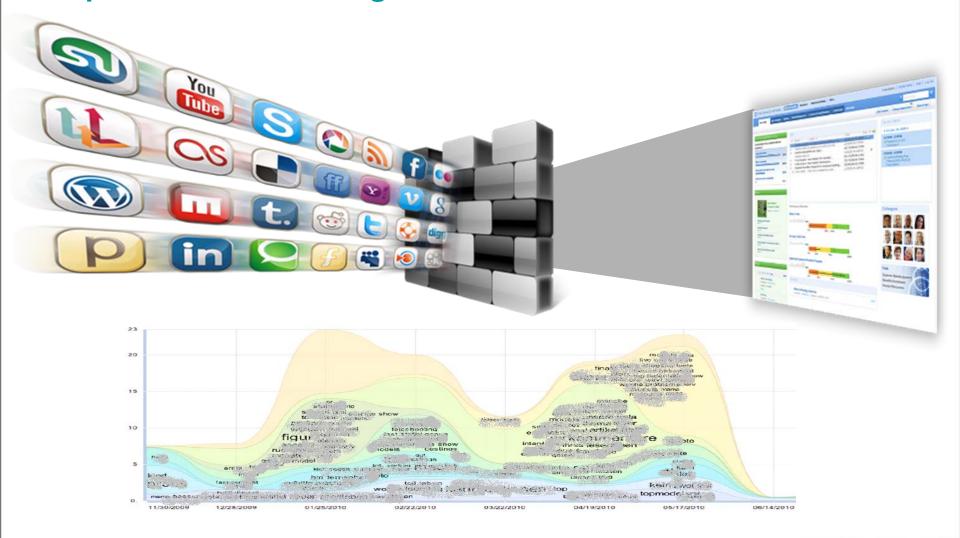
• Integrate with the operational systems that support key







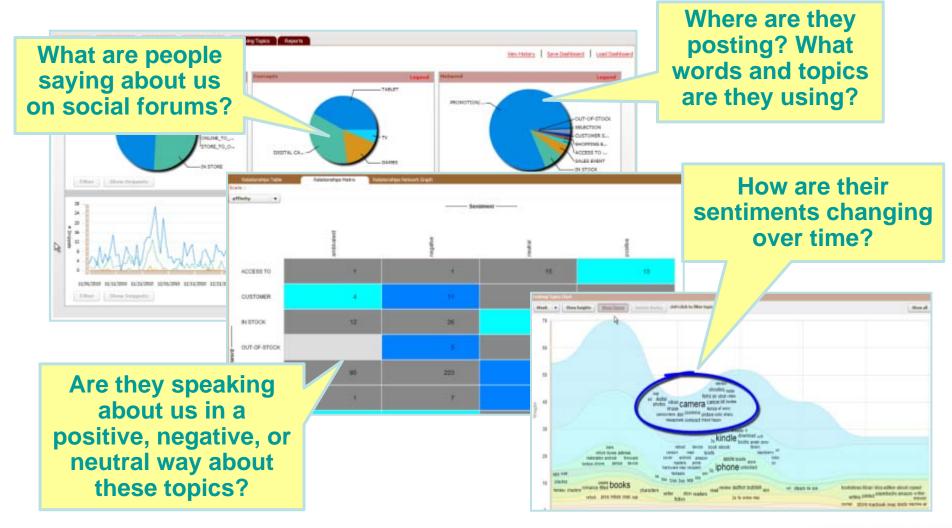
Companies are embracing social media





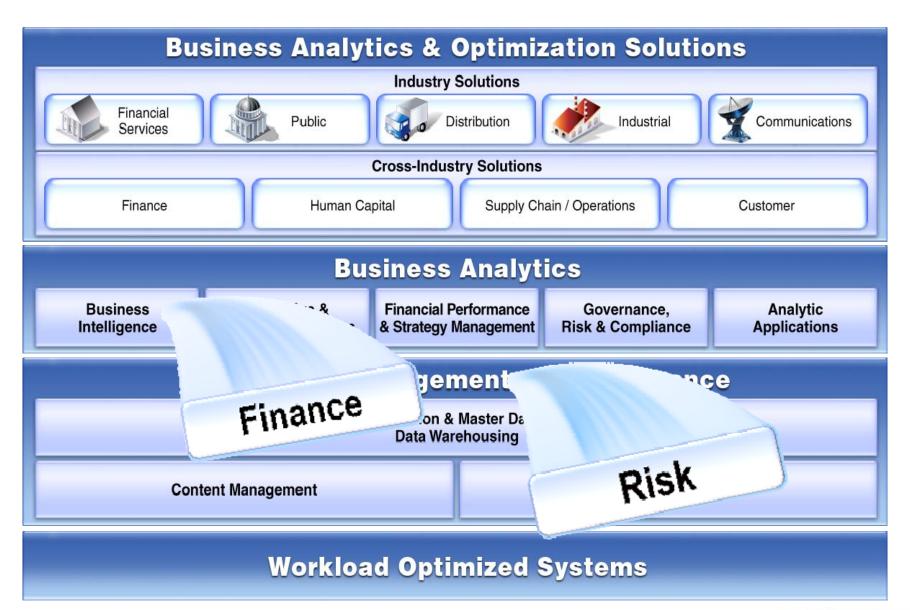


Cognos Consumer Insight: *Listen to Your Customers*













Financial Analytics

Financial Performance and Strategy Management



Enterprise Governance, Risk, and Compliance Platforms







CLARITY FSRTM







- Financial governance software that automates financial reporting, improving efficiency and data quality for SEC filings (including XBRL), 10Qs and Ks, board reports, etc.
 - Automated external reporting
 - Business rules
 - Reconciliation Management
 - Internal Controls, Work Flow and Audit Trail
- Solutions enable organizations to collect, prepare, certify and control the delivery of financial documents
- Meet electronic filing mandates (including XBRL) from stock exchange and other regulatory bodies



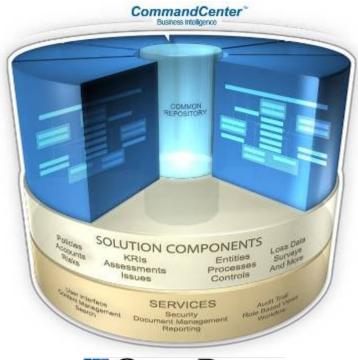


Risk Intelligence and Scorecarding

Financial Controls Management

Operational Risk General Controls

II Governance Internal Audit



- For Chief Risk Officers, CFOs
- Enterprise GRC software platform that serves as the foundation for a company's enterprise risk management efforts by unifying enterprise -wide risk and compliance initiatives into a single management system. Platform provides a modular and integrated approach to governance, risk and compliance.







Financial Performance and Strategy Management

Financial Performance Management

Close, Consolidate, and Report

Analyze & Optimize

Plan, Forecast, and Control

- Account Analysis
- Close Analytics
- FinancialConsolidation
- Corporate Reporting

- Financial Analytics
- Spend Analytics
- Profitability Analytics
- Product, Market, Channel Analysis
- Powered by TM1

- Strategic Finance
- Revenue Planning and Forecasting
- Expense Planning& Control
- Workforce Planning
- Capital and Initiative Planning











Marico

marico uncommon sense

• Brief profile

- Present in almost every FMCG market segment hot oils, hair, skin, weight management, beauty and wellness amongst others
- Marico has also been rated one of India's 'Top 8
 Global Challengers' by Standard & Poor

"IBM Cognos TM1 has helped us streamline and take our planning and budgeting processes to a new level. This tool has enabled us to shift our focus from data crunching to data analysis."

Girish Rao - IT Head, Marico

Challenge

- Inflexible planning through spreadsheets
- Seamless integration across multiple data sources including mySAP and SAPBW

Solution

Cognos TM1

Results

- Reduces the time required for budgeting, planning and reporting.
- Increases flexibility, accuracy and efficiency.
- Easy to use and maintain.



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Smarter Merchandising Means Tailored Assortment

Retailer

Too much of the wrong product Sales lost due to out-of-stocks Inventory depreciation Wasted shelf/storage space

Operational Inefficiencies
Supply chain disruption

Customer

Selection does not meet needs
Preferred product is not offered
Desired product is out of stock
Few new/seasonal items

Customer dissatisfaction Erosion of customer loyalty

DECREASED REVENUE
POOR CUSTOMER SATISFACTION
LOWER PROFITS
LOST MARKET SHARE

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Store-Level Assortment – Process Flow



Capture

Identify and access relevant data Internal data ie: POS Data, Store data, External data (ie: demographics)



Predict

Apply predictive and advanced analytics to generate optimized assortment plan by store for specific time period





Understand merchandise performance, measure store sales by SKU against plan

Update Plans

Review predictions, model scenarios

Act

Execute plans, place orders, stock stores

Store-Level Assortment Business Analytics Process:

- Understand store profiles, item-level sales history, external data
- Determine likelihood of SKU-level sales/ units by store for upcoming period
- Generate optimized assortment plan by location
- Understand performance vs plan vs prediction

Business Results:

- Ensure right products at right quantity are ordered for each store to meet customer demand, which will:
 - Increase revenue
 - Raise profits
 - Improve ROI on inventory investment
 - Increase customer satisfaction and basket size



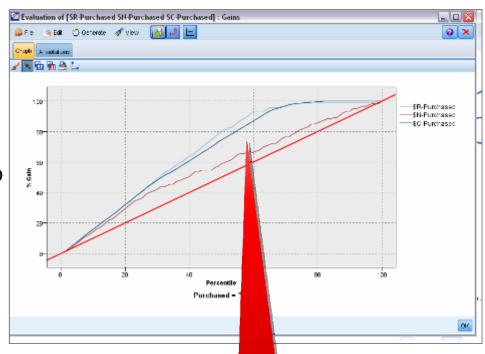
Apply predictive and advanced analytics to generate optimized assortment plan by store for specific time period



Predict

Determine likelihood of individual item selling on a store by store basis

- Take into consideration store / cluster attributes
- Use multiple modelling techniques to predict whether a store should stock individual SKUs such as: CHAID, C5 and Neural Networks
- Use multiple methods of scoring predictions from modelling techniques for best prediction







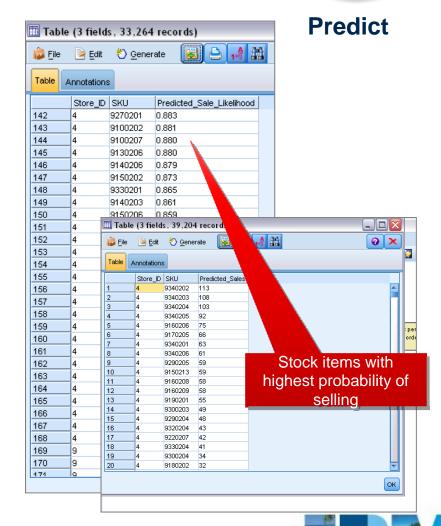


Apply predictive and advanced analytics to generate optimized assortment plan by store for specific time period



Generate predicted sales forecast by SKU by store

- Predict demand sales volume based on attributes associated with each SKU
- Take into consideration SKU, Store, weather and other related attributes
- Generate listing of SKUs to be stocked at each store, for each time period, ranked by likelihood to sell
- Generate listing of predicted sales by SKUs by Store (highest sales through to lowest sales).





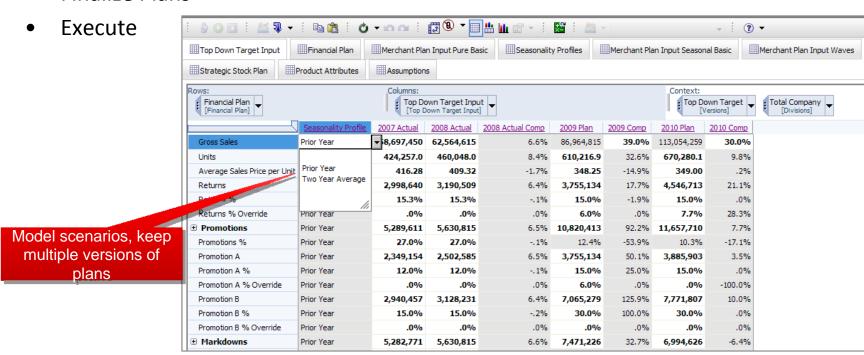
Review Predictions and Execute Plans



 Review SKU-Level Predictions against plan, history

Act

- Model alternatives
- Finalize Plans







Understand merchandise performance

Measure



- Measure store sales by SKU
- Identify forecast accuracy
- Understand performance agair
- View trending over time

Set Dashboard Context:

Please select a GEO

Show Filter Promot-

Show Pilter Prompt

News Headlines

Category

Audio Visual Category

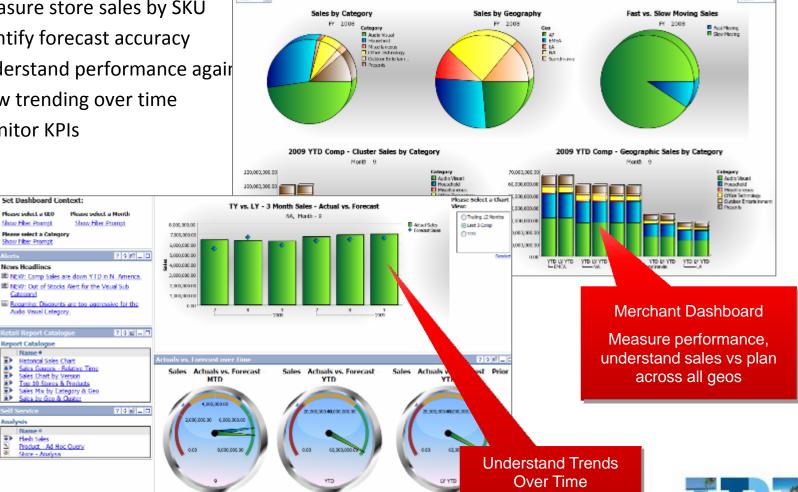
Historical Sales Chart. Sales Gauces - Relative Time

Sales Chart by Version Too 10 Stores & Products

Name *

Please select a Category

Monitor KPIs







Understand merchandise performance

EMEA

Scandinavia

Store(All)

77,403,815.74

45,274,230.32

325,111,149.44

Measure

- Sales and margin by product, category, store
- Rankings
- Deep-dive analysis
- Performance by attribute(s)

File Edit View Settings Run Help

BA - Assortment Planning Data View

Business View

□ Dimensional View ± - Time

> Store Cluster

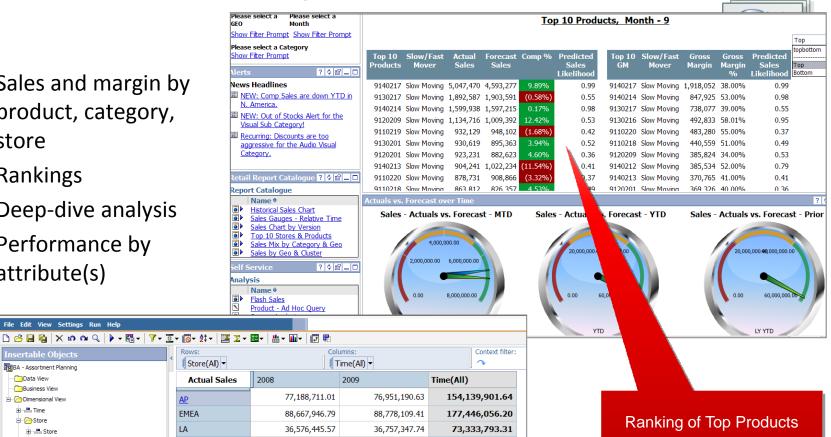
Product

> L_RRP Sale Price Gross Margin

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☐ Product

- Measures Predicted Sales Forecast Sales Actual Sales Unit Cost



156,277,936.38

90,788,860.57

651,986,548.11

78,874,120.64

45,514,630.25

Ad hoc Query

326,875,398.68

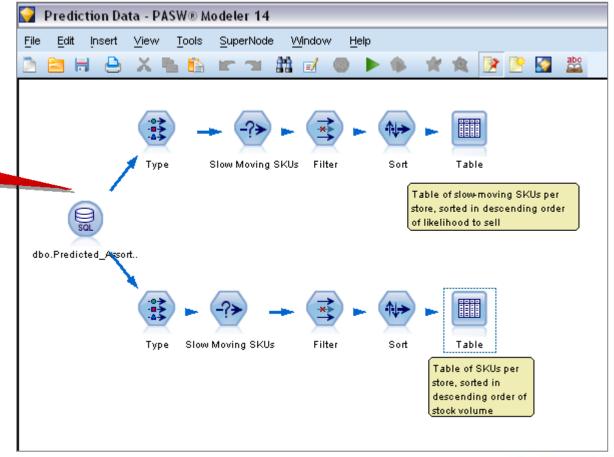


Continually Refine Predictive Models

Measure



Models become 'more intelligent' over time, based on sales patterns







"Business analytics is the key to enabling our clients to turn oceans of data into predictive models and actionable decisions."

- Purpose-developed Platform
- Solutions for critical areas
- Innovation that matters ...driving ROI
- Best Practice Experience



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