



IBM Software

Information Management & Analytics Forum **2013**

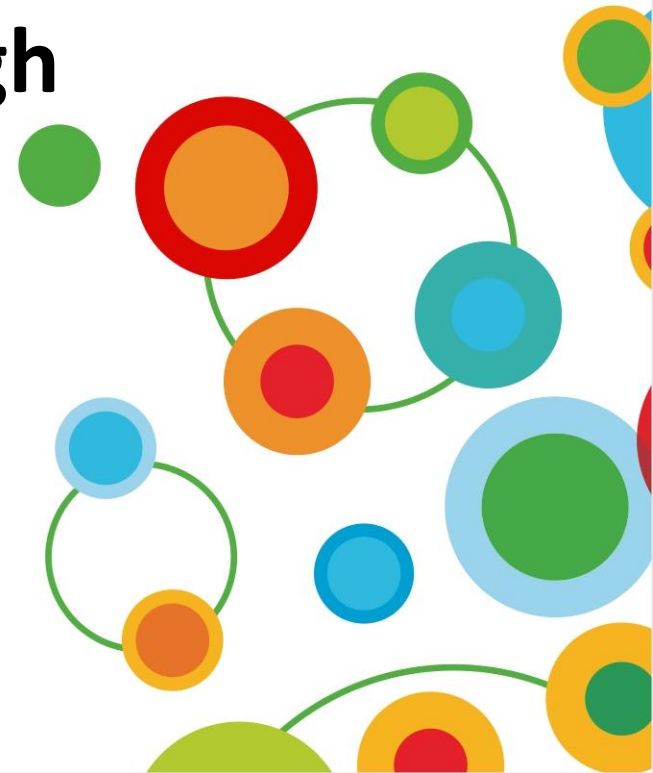
Return on Information: The New ROI

Leverage more value through Predictive Analytics

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Agenda

- IBM Predictive Analytics portfolio
- Predictive Analytics for Industry Verticals
- Key Features

IBM CEO Study 2012

Leaders are recognizing our new connected era is changing how people engage.

To engage customers as individuals, CEOs are building analytical muscle to respond with relevance and immediacy.

Engaging customers as individuals

“The time available to capture, interpret and act on information is getting shorter and shorter.”

CEO, Chemicals and Petroleum, United States

Improve understanding of individual customer needs



Improve response time to market needs



Enabling the Predictive Analytics Process

Capture Detect & Capture

Transactions
Demographics
Interactions
Opinions



CCI



Data Collection

Predict Analyze & Predict

Predictive Modeling
Data Mining
Text Analytics
Social Network Analysis
Statistical Analysis



Statistics



Modeler

Act Engage & Act

Prediction
Rules
Optimization
Process



Decision
Management



Collaboration and Deployment Services

Predictive Analytics for your Business

Advanced Analytics for Large Enterprises

Achieve Sales Excellence



Attract, Grow and Retain Top Performers



**Ticket Data Analytics
- Project Analytics**



Monitor, Detect and Control Fraud



Advanced Analytics for your business

Telecom

Customer Churn Analytics
Cross Sell/ Up sell
Campaign Analytics
Network Optimization



Manufacturing

Predictive Maintenance
Sales Forecasting



Retail

Market Basket Analytics
Assortment planning /
Merchandising



Automotive

Warranty Analytics
Dealer Analytics



Advanced Analytics for BFSI

Customer Analytics:

- Profile Your Customers
- Credit Scoring & Internal Rating
- Use RFM Scoring
- Cross-Sell Up-sell
- Retain Profitable Customers

Fraud & Risk Analytics:

- Credit Risk Scoring
- Anomaly Detection

Operations Analytics:

- ATM Cash Management
- Agent Analytics



IBM Predictive Analytics Use Cases for Governments

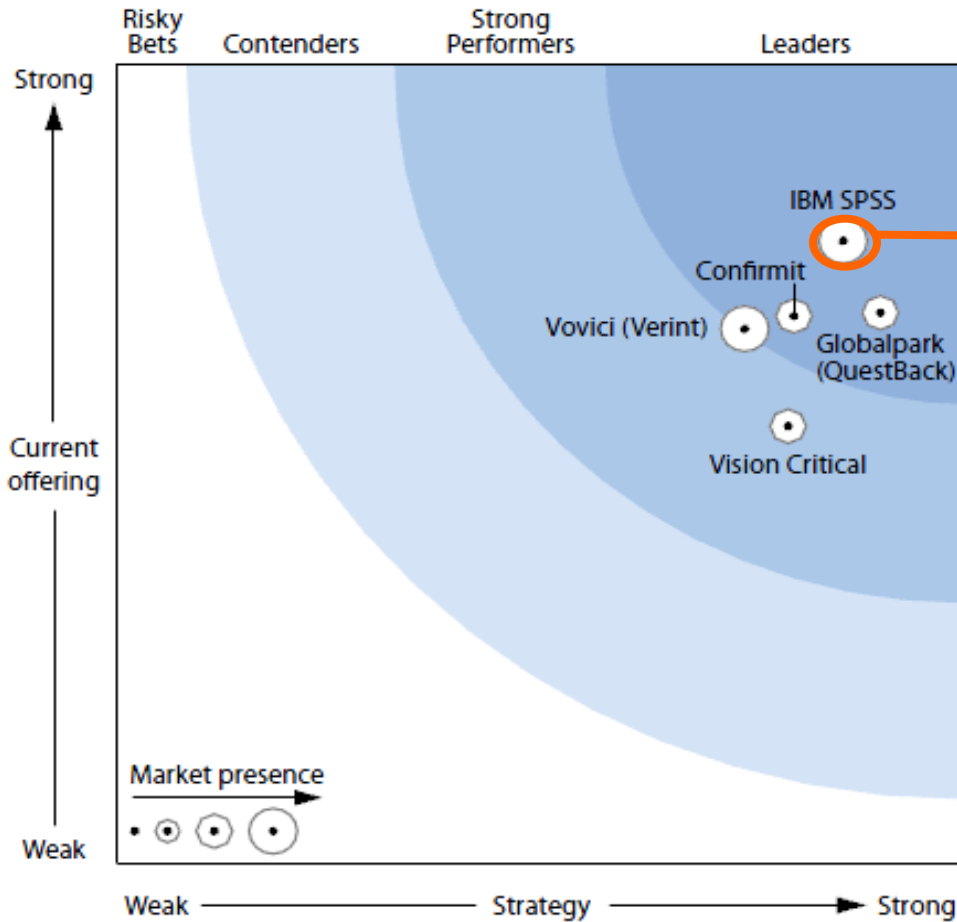
1: Tax Fraud Prediction and Prevention

2: Crime Prediction and Prevention

3: Department of Economics and Statistics

Data Collection for Market Research

IBM SPSS Data Collection for Market Research



“When we benchmark the market-insights-focused EFM vendors against Forrester’s EFM definition, IBM SPSS excels with every aspect of the definition.”

Forrester Research

“IBM’s vision of a ‘smarter planet’ is where the future of EFM is heading, and IBM SPSS has provided the benchmark for what it looks like.”

Forrester Research

Source: Forrester Research, Inc.

IBM SPSS Data Collection for Market Research

SPSS Data Collection

A complete, integrated survey platform



Authoring



Interviewing



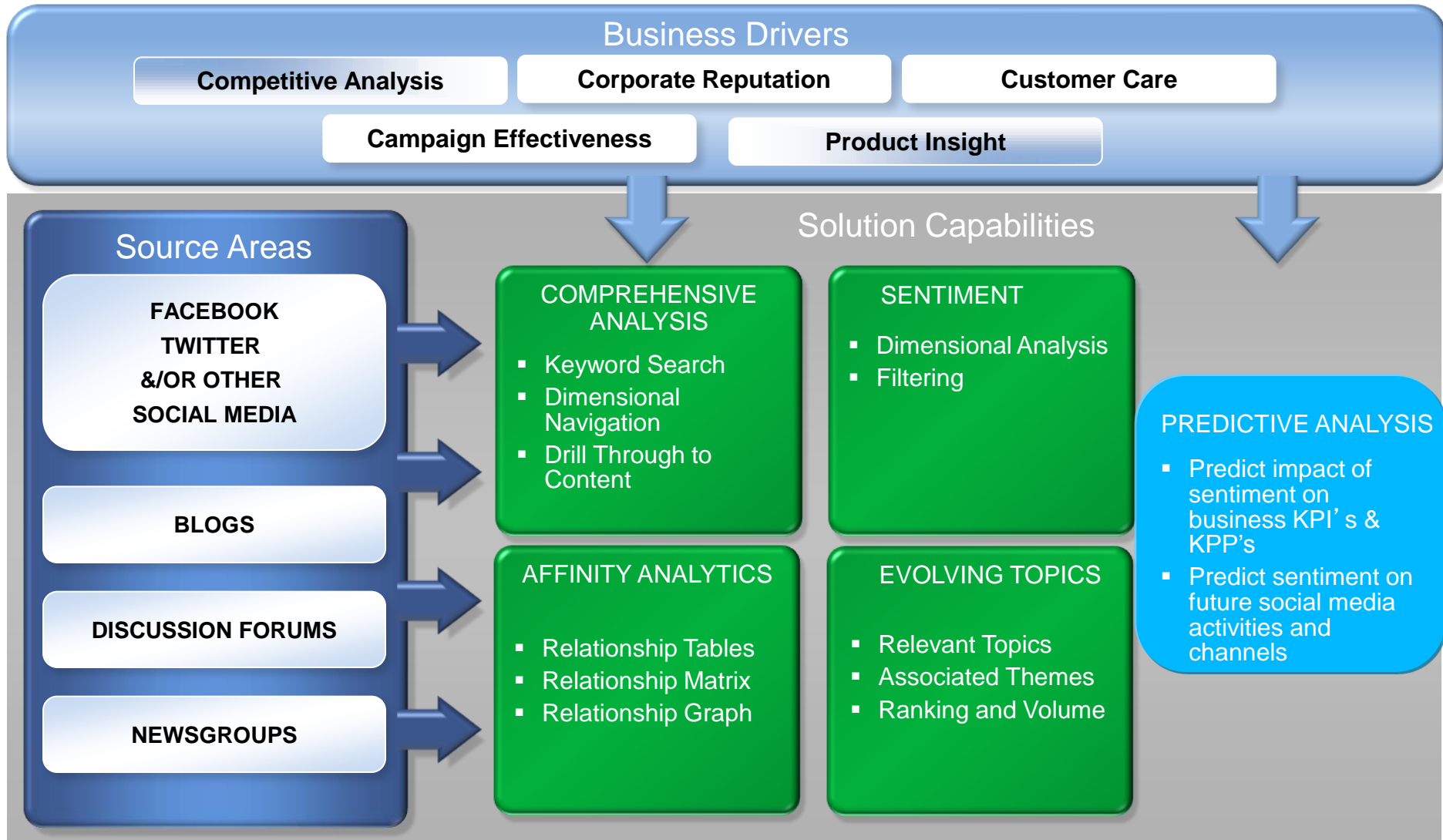
Analysis



Reporting

Social Media Analytics

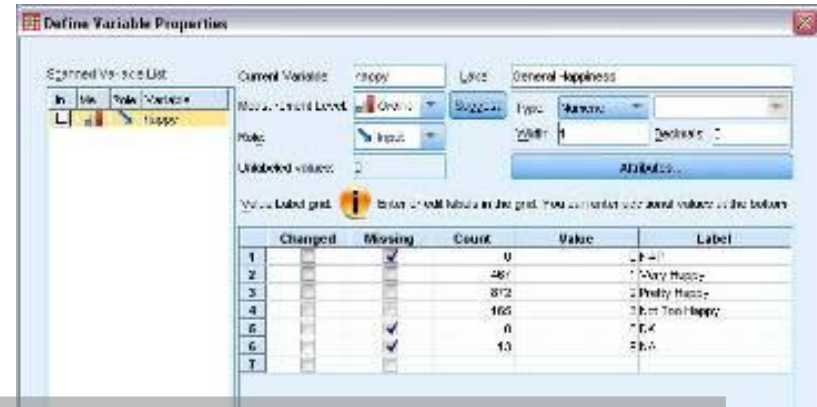
IBM Social Media Analytics & Predictive Analytics



IBM SPSS Statistics 21

Predict: IBM SPSS Statistics

- Advanced statistics and data management for analysts researching business problems
- Collection, analysis, interpretation, explanation and presentation of data
- Provides insight into a sample of data and tools for prediction and forecasting based on the data

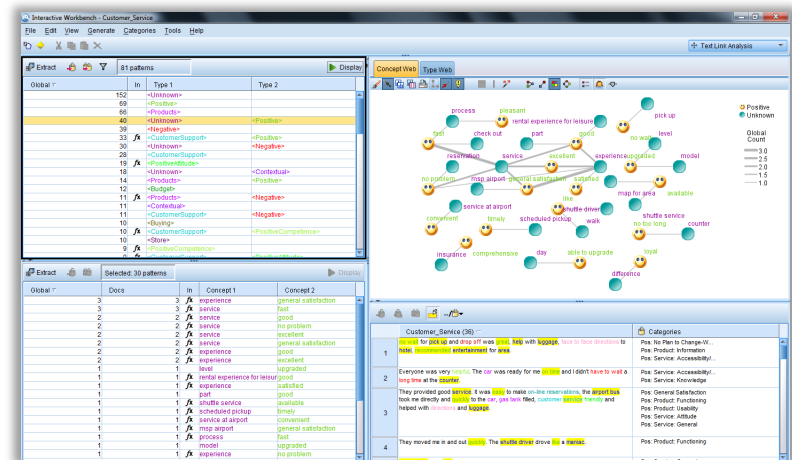
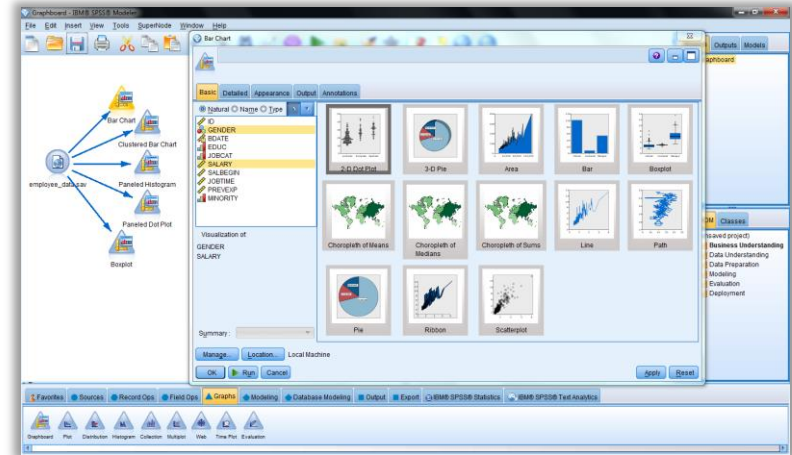


Drives confidence in your results and decisions

IBM SPSS Modeler Overview

IBM SPSS Modeler

- Easy-to-use, interactive interface without the need for programming
- Automated modeling and data preparation capabilities
- Access ALL data – structured and unstructured – from disparate sources
- Natural Language Processing (NLP) to extract concepts and sentiments in text
- Entity Analytics ensures the quality of the data and results in more accurate models
- Leverage existing investment in Cognos, Netezza, InfoSphere and System Z



Entity Analytics

Entity Analytics automatically detects when multiple entities are the same despite having been described differently.

Is this one person or two?



Bill Smith
123 Main Street
(800) 555-1212
SSN: 444-33-2222
DOB: 8/7/84

Applicant: Today



William R Smith
123 S Main Avenue
(100) 111-1234
DL: 90909091
DOB: 7/8/84

Arrested: Feb 2011

Entity Analytics uses “Context Accumulation” to Find Deeper Insights

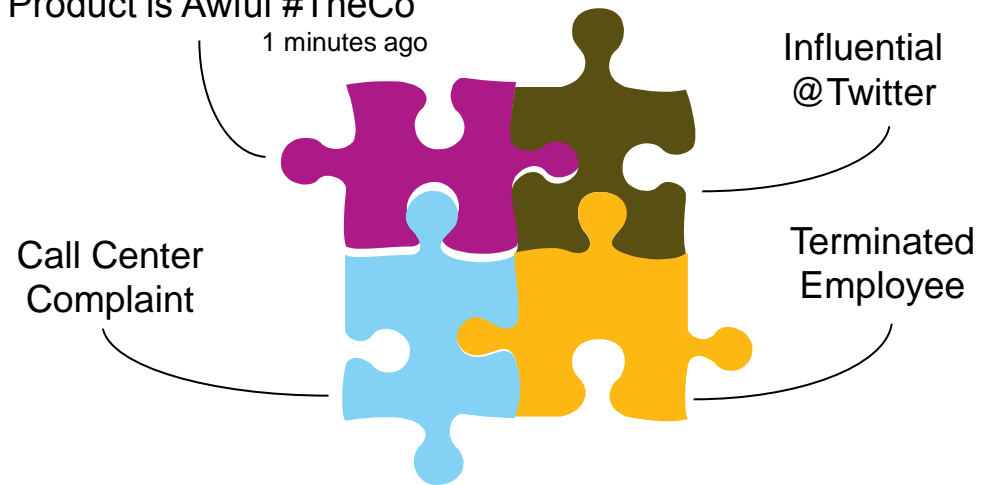
Context: Better understanding something by taking into account the things around it

“Product is Awful #TheCo”
1 minutes ago



Not Actionable

“Product is Awful #TheCo”
1 minutes ago



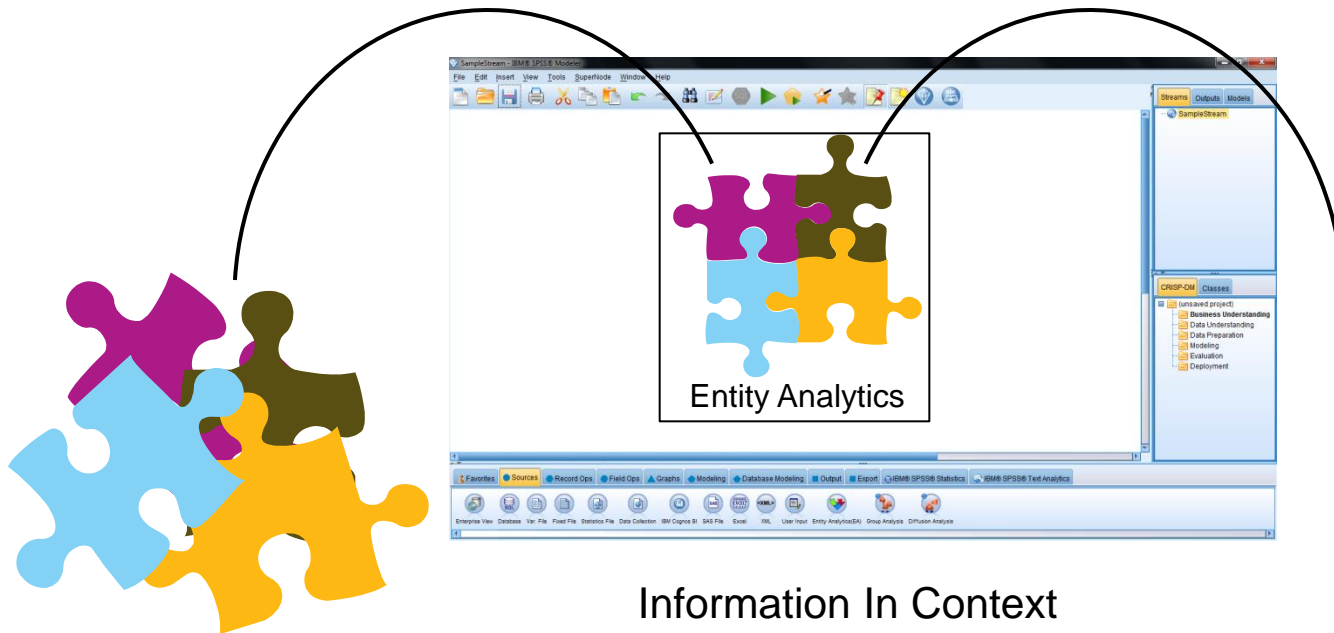
Substantially more Actionable

Context Accumulation: The incremental process of integrating new observations with previous observations

IBM SPSS Entity Analytics Delivers General Purpose “Context Accumulation”

Data Finds Data

Relevance Finds User



Observation
Space

Information In Context



Consumption

Entity Analytics – Application for Credit

Entity 102	Entity 343	Entity 642	Resolved Entity
Name Beth L. Johns -Parker BL Johns Addr1 123 Main Street 777 Park Road City New York State NY Phone 2127331234 DOB 6/21/1954 Income \$8,000 Credit Debt \$5,359 Other Debt \$2,009 Debt to Income 92.1 Prev Default? True Pending Loan False	Full Liz Johns Addr1 33 Red Dr City Mamaroneck State NY Postal 10354 Phone 212-733-1234 914-698-2234 Income \$9,000 Credit Debt \$6,000 Other Debt \$3,000 Debt to Income 100 Prev Default? True Pending Loan False	Full Elizabeth Lisa Johns Addr1 33 Reed Dr City White Plains State NY Postal 10354 Phone 914-698-2234 Income \$31,000 DOB 6/21/1954 Credit Debt \$1,362 Other Debt \$4,001 Debt to Income 17.3 Prev Default? False Pending Loan True	Name Elizabeth Lisa Johns Liz Johns Beth L Johns-Parker BL Johns Addr1 123 Main Street 777 Park Road 33 Red Dr 33 Reed Dr City New York, White Plains, Mamaroneck State NY Postal 11732, 10354 Phone 212-733-1234 914-698-2234 DOB 6/21/1954 Defaults Yes Income \$48,000 Credit Debt \$12,722 Other Debt \$9,009 Debt to Income 113.5 Prev Default? True Pending Loan True

Text Analytics

Text Analytics Extracts Concepts and Patterns from Text

Text Analytics Identifies the Context/Sentiment of the Text

Interactive Workbench - Customer_Service

File Edit View Generate Categories Tools Help

Text Link Analysis

Extract 81 patterns Display

Global	In	Type 1	Type 2
152		<Unknown>	
69		<Positive>	
66		<Products>	
40		<Unknown>	<Positive>
39		<Negative>	
33	fx	<CustomerSupport>	<Positive>
30		<Unknown>	<Negative>
28		<CustomerSupport>	
19	fx	<PositiveAttitude>	
18		<Unknown>	<Contextual>
14		<Products>	<Positive>
12		<Budget>	
11	fx	<Products>	<Negative>
11		<Contextual>	
11		<CustomerSupport>	<Negative>
10		<Buying>	
10	fx	<CustomerSupport>	<PositiveCompetence>
10		<Store>	
9	fx	<PositiveCompetence>	

Concept Web Type Web

Positive
Unknown

Global Count
3.0
2.5
2.0
1.5
1.0

Extract Selected: 30 patterns Display

Global	Docs	In	Concept 1	Concept 2
	3	3	fx experience	general satisfaction
	3	3	fx service	fast
	2	2	fx service	good
	2	2	fx service	no problem
	2	2	fx service	excellent
	2	2	fx service	general satisfaction
	2	2	fx experience	good
	2	2	fx experience	excellent
	1	1	level	upgraded
	1	1	fx rental experience for leisure	good
	1	1	fx experience	satisfied
	1	1	part	good
	1	1	fx shuttle service	available
	1	1	fx scheduled pickup	timely
	1	1	fx service at airport	convenient
	1	1	fx msp airport	general satisfaction
	1	1	fx process	fast
	1	1	fx model	upgraded
	1	1	fx experience	no problem

Customer_Service (36)

	Categories
1	Pos: No Plan to Change-W-... Pos: Product: Information Pos: Service: Accessibility/...
2	Pos: Service: Accessibility/... Pos: Service: Knowledge
3	Pos: General Satisfaction Pos: Product: Functioning Pos: Product: Usability Pos: Service: Attitude Pos: Service: General
4	Pos: Product: Functioning

Social Network Analysis

Social Network Analysis Applications

•Churn Prediction

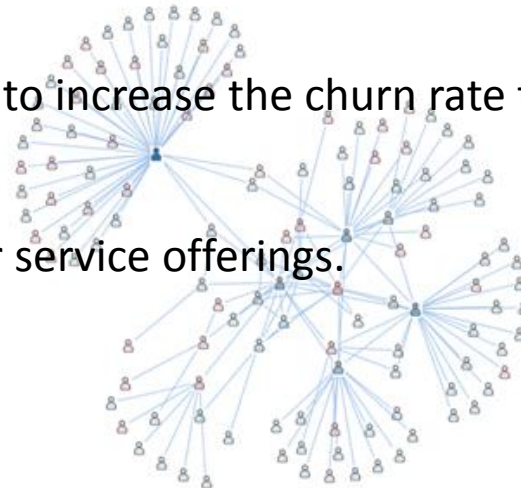
- Group characteristics can influence churn rates
- Focus on individuals in groups with an increased risk of churn
- Identify individuals that are at risk of churning due to the flow of info from those that already churned.

•Leveraging Group Leaders

- Group leaders are highly influential over other group members
- Prevent a group leader from churning to decrease the churn rate for other group members
- Acquire a group leader from a competitor to increase the churn rate that group.

•Marketing

- Use Group leaders to initiate new goods or service offerings.



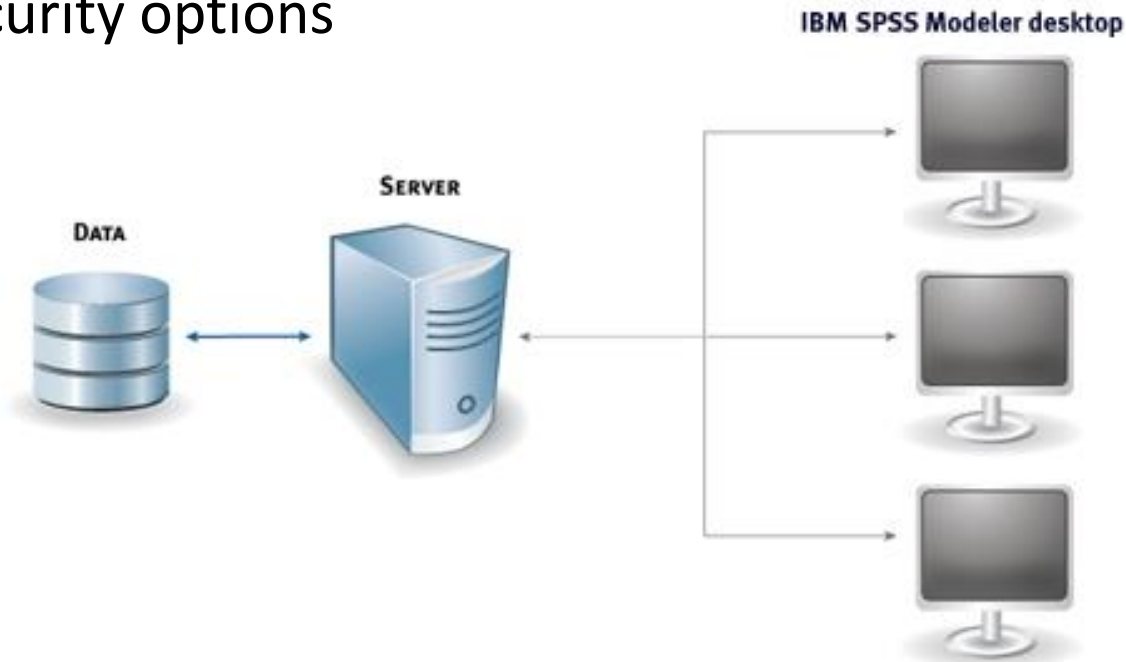
Modeler Server

In-Database Support with SPSS Modeler Server

- All the features of IBM SPSS Modeler
- Large volumes of data
- High performance
- Administration and security options

- **In-Database via...**

- SQL pushback
- In Database Algorithms
- Scoring Adapters
- SQL scoring



Collaboration & Deployment Services

Collaboration and Deployment Services

Manage and deliver more effective analytical results

Collaboration

Share: Need to centralize and share analytical assets

Protect: Automatically tracking and auditing changes

Publish: Easy for business users to access results formerly reserved for analysts

Automation

Construct: Complex jobs, different scenarios, multiple tools

Operationalize: Monitor results

Govern: Managed changes; Audit ready

Deployment

Deliver scores: Optimized for real time

Integrate: Programmatic interfaces into operational systems

Enterprise ready: Ensures scalability, reliability, security

Analytical Decision Management

IBM Analytical Decision Management

Better outcomes in real-time, Every time.

Empowers business users

Real-time adaptive decisions to accommodate changing conditions

Provides recommended actions

- Predictive analytics +
- Business rules +
- Scoring +
- Optimization techniques

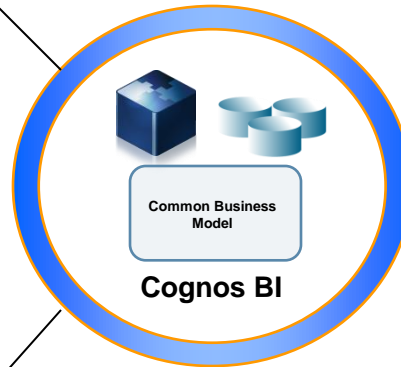


Integration with Other IBM Products

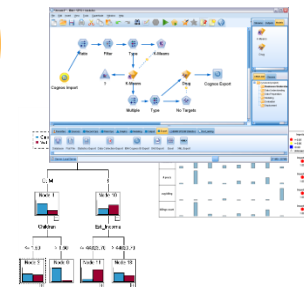
Adding Value to Cognos BI with Predictive Analytics



1) Leveraging BI, identify problem or situation needing attention



2) Use SPSS predictive analytics & feed results back into the BI layer



3) Results widely distributed via BI for consumption by Business Users



IBM SPSS in India



Banking

- Customer Analytics
- Risk Analytics



Insurance

- Cross Sell/ Up Sell
- Persistency Analysis



Government

- Crime Prediction & Prevention
- Tax Fraud Analytics
- Economics and Statistics Departments



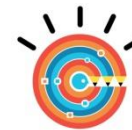
Manufacturing

- Sales Forecast Analysis
- Inventory Management



IT/ ITES

- Employee retention
- Customer Insights
-



Education

- Student retention
- Curriculum optimization
- Alumni management

Why IBM Predictive Analytics

Why IBM Predictive Analytics?

1: Complete Analytics Platform

2: Ease of use

3: Focus on Business Users

4: Lower Total Cost Ownership

5: IBMs focus on Analytics

6: Our proven success in India



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Return on Information: The New ROI

Thank You

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