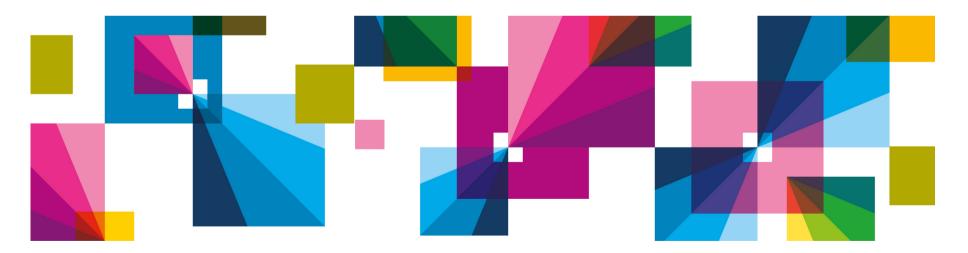
#### **IBM Finance Forum 2013**

Smarter Analytics. Smarter Outcomes.

IBM

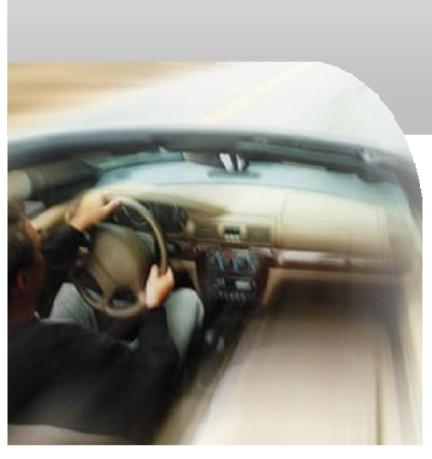
Frans Vermaak – IBM Business Analytics, MEA 6 June 2013

# Driving Stronger Business Insight through a CFO Dashboard





#### Volatility, uncertainty and risk



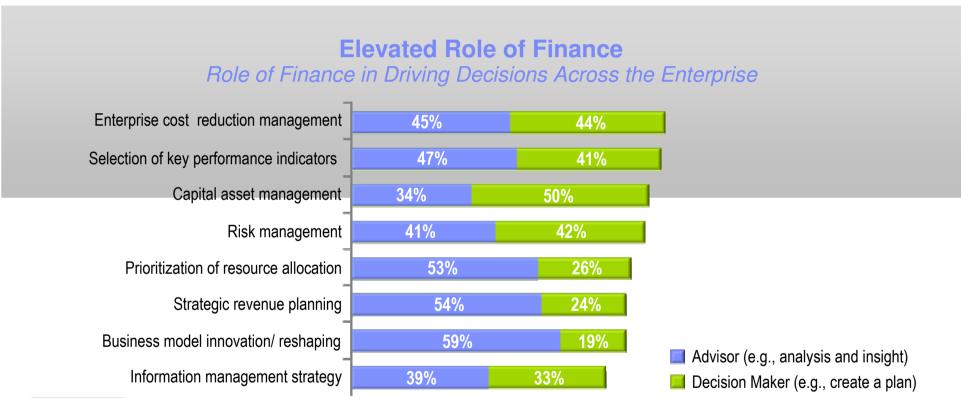
...fewer than 15% are confident that they get helpful information for making decisions about the future... ")

-CFO Executive Board, March 2012



## **Become a Value Integrator**

# According to the 2010 IBM Global CFO study, CFO's are taking a more prominent role in enterprise decision making



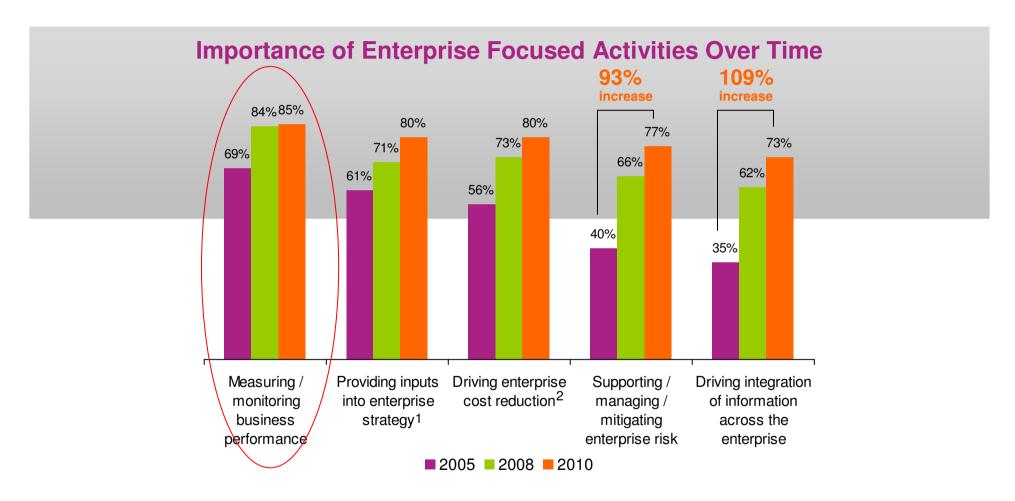


Over 70% of CFOs believe they have an advisory or decision making role on the Enterprise agenda.

Source: IBM Institute for Business Value, The Global CFO Study 2010

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Enterprise focused activities have accelerated in importance for CFOs over the past five years – some dramatically



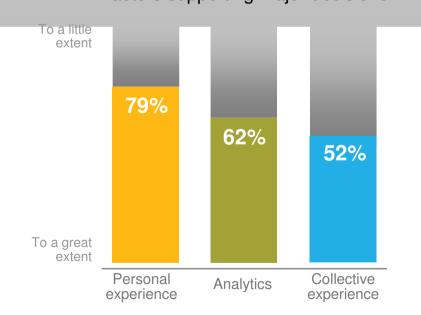
Source: IBM Institute for Business Value, The Global CFO Study 2010

#### However, organizations are operating with blind spots



business leaders frequently make critical decisions without the information they need

#### Factors supporting major decisions



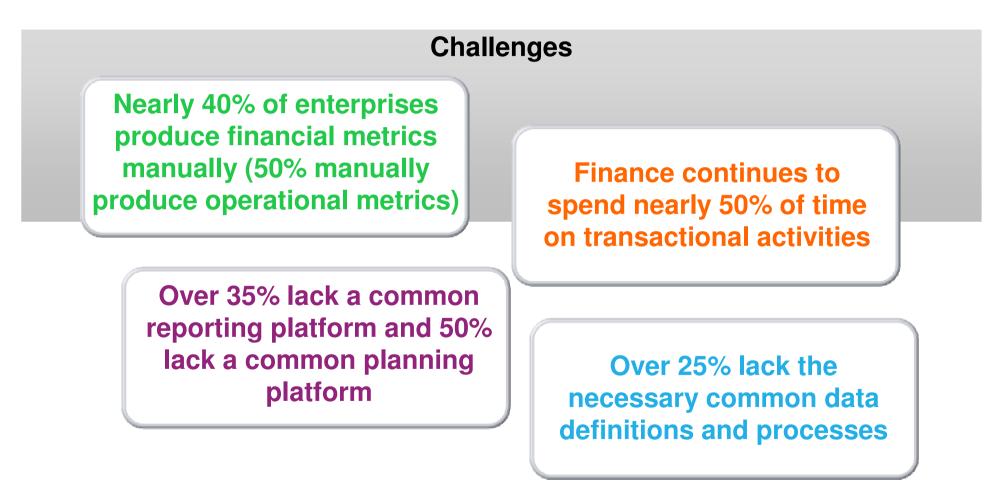
Limited ability to get the right information for consumption by executives or field personnel Inaccurate reporting due to siloed data The current IT-centric service model is too costly, too inefficient, and can't scale Limited adoption and use of business analytics across the entire organization

do their jobs

don't have access to the information

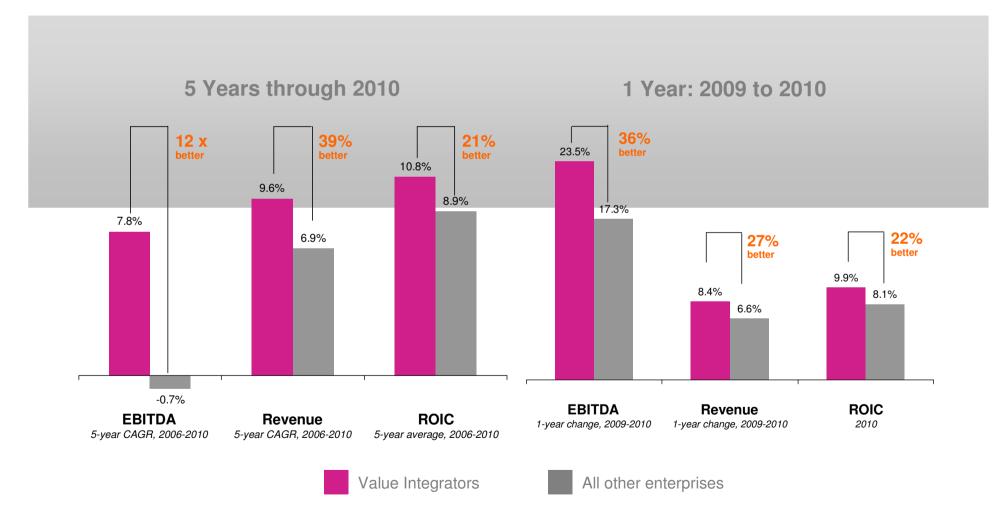
across their organization needed to

# Organizations continue to struggle with structural complexity and delivering business insight



Source: IBM Institute for Business Value, The Global CFO Study 2010

# Value integrators combine efficiency with business insight to deliver better financial performance

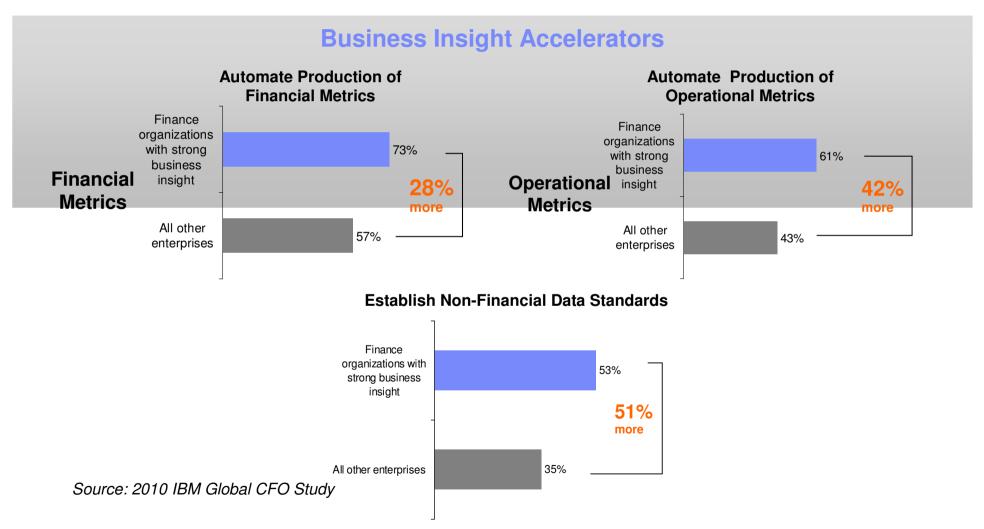


Source: IBM Institute for Business Value, The Global CFO Study 2010 / Journey to a Value Integrator

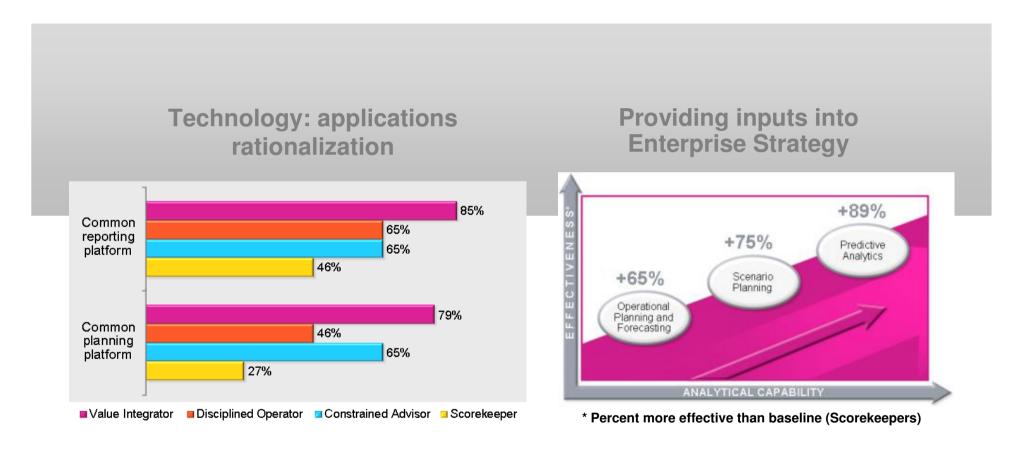
# The Challenge: Accelerate the delivery of Business Insight from rear view to forward-looking view

	Bus	iness Insight	
Key Business Questions	<ul><li>What happened?</li><li>How many, how often?</li></ul>	<ul> <li>Where exactly is the problem?</li> <li>Why is it happening?</li> <li>What actions are needed?</li> </ul>	<ul> <li>What will happen next?</li> <li>What if these trends continue?</li> <li>What are the risks or opportunities?</li> </ul>
	Rear View	Current View	Forward-Looking View
Examples of Business Insight	<ul> <li>Revenue and cost .</li> </ul>	Customer, product and market profitability Spend optimization Working capital analysis Market, customer and channel pricing	<ul> <li>Cash forecasting</li> <li>Scenario-based planning and forecasting</li> <li>Strategic investment decision support</li> <li>Volatility, risk-based</li> </ul>

Finance organizations that automate the production of financial metrics deliver stronger business insight



# They implement a common platform to a greater extent and invest in advancing analytics



Source: IBM Institute for Business Value, The Global CFO Study 2010



## Increase visibility, insight & control

## IBM Smarter Analytics Signature Solution - CFO performance insight

#### Business Challenges

 While measuring and monitoring performance is most often cited as their top priority, over 40% of CFOs rate themselves as ineffective (source: IBM Global CFO study)

#### What's Smart?

- Visibility into performance gaps for critical KPIs
- Built-in KRIs to anticipate risks
- Proprietary statistical model discovers relationships between drivers and KPIs based on historical data
- Guided root-cause analysis
- Easy access to standard GL/AR/AP reports
- Integrated what-if analysis and scenario planning

#### **Smarter Business Outcomes**

- Reliably measure and monitor business performance
- Anticipate performance gaps, understand root cause and assess alternatives
- Deliver more reliable business insight on a stronger foundation of trusted information

How can I anticipate and shape business outcomes?

#### **CFO** Performance Insight



Increase visibility, insight and control over financial performance

Cross-industry

# IBM Smarter Analytics Signature Solution - CFO performance insight An overview

Increase visibility, insight and control over financial performance



**Extract** and **Assemble** financial and operation data from heterogeneous ledger systems and operational data sources into an online executive dashboard

Measure and Monitor performance gaps between forecasts, targets and actuals for important financial, revenue, expense and capital management KPIs

- Visualize KPI status and trends through an online executive dashboard
- Easily access standard GL/AR/AP reports to improve detailed financial analysis
- Identify possible weaknesses through built-in key risk indicators



Use predictive analytics developed by IBM's Watson Research Center to Discover casual, lead-lag relationships between operational drivers and financial KPIs from historical information to improve root-cause analysis



Conduct what-if analysis to Anticipate the impact of alternative forecast assumptions, reflected immediately in charts, reports and the main dashboard

### IBM Smarter Analytics Signature Solution - CFO performance insight How it works





## Finance scorecard "quadrants"

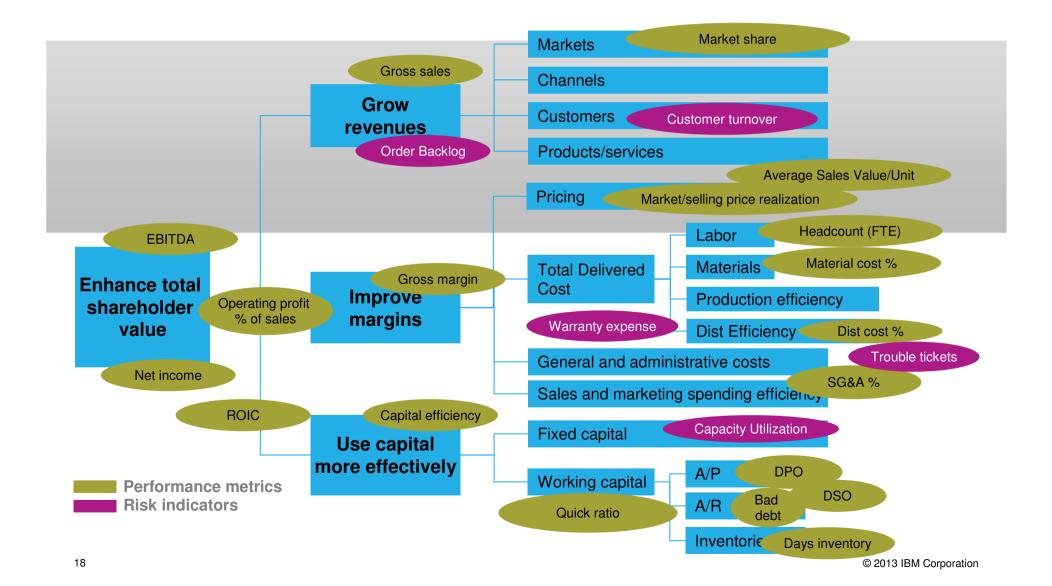
Financial Management	<b>Operational Revenue Management</b>
Are we performing to shareholder expectations?	Are we driving revenue growth effectively?
<b>Operational Expense Management</b>	Capital Management
Are we managing operational expenses	Are we managing fixed and working
effectively?	capital effectively to increase future
	revenue and expense management
	capabilities?



## IBM CFO performance insight Finance scorecard metrics – 19 KPI's

Financial Management	Operational Revenue Management
• EBITDA	Gross Sales
Net Income	<ul> <li>Avg. Sales Value/Unit</li> </ul>
• ROIC	<ul> <li>Price Realization</li> </ul>
<ul> <li>Operating Profit (% of Sales)</li> </ul>	Market Share
<b>Operational Expense</b>	Capital Management
Management	
• SG&A %	<ul> <li>Capital Efficiency</li> </ul>
<ul> <li>Gross Margin</li> </ul>	<ul> <li>Quick Ratio</li> </ul>
<ul> <li>Gross Margin</li> <li>Material Cost (% of Sales)</li> </ul>	<ul><li> Quick Ratio</li><li> Days Sales Outstanding (DSO)</li></ul>
•	-
<ul> <li>Material Cost (% of Sales)</li> </ul>	<ul> <li>Days Sales Outstanding (DSO)</li> </ul>

#### Metrics coverage of value drivers—19 KPIs and 5 KRIs



#### IBM CFO performance insight: executive dashboard

Bad Debt Write-off

\$1,732,948

Finance ?	IBM Cognos Viewer										? _
Company Logo	Measuring Period: YTD Geography: All Geog	graphies	▼ ▼	Business Unit: Country:	All Businesses All Countries	•	Measurin	g Currency: Rep Company: All			•
ERP/source web			2011 Fiscal YTD		201	1 Full Fiscal Year		Rolling 12 mo.			
Link to ERP/source web interface	Financial Management		Actual	Target	Budget	Forecast	Variance	Fost	Trends	Risk	тсм
CFO Home ?	EBITDA		\$99,958,803	\$90,500,917	\$139,151,262	\$121,463,095	-13% 📕	\$119,227,086	Link		¢.
Portal Name 🖨	Net Income			\$38,406,045	\$59,386,062	\$42,599,047	-28% 📕		Link		c;
Finance Scorecard Metrics	ROIC		15%	12%	12%	2%	-9% 📕	9%	Link		¢,
CFO Financial Analysis ? _ 🗆	Operating Profit%		39%	39%	39%	34%	-5% 🔶	34%	Link		¢,
Dashboard Reports			2044 5:			A Coll Constant					_
Name ≑ Financial Management	Operational Revenue Management		2011 Fiscal YT	u Target	201 Budget	1 Full Fiscal Year Forecast	r Variance	Rolling 12 mo. Fcst	Trends	Risk	тсм
Derational Revenue Management	Gross Sales		\$418,367,062	\$413,674,560	\$632,399,040	\$590,339,683	-7%	\$582,282,307	Link		¢,
Operational Expense Management           Capital Management	Avg. Sales Value/Unit		\$747	\$692	\$691	\$748	8% 🔵	\$748	Link	_	di
	Price Realization		60%	56%	56%	60%	4% 🔵	59%	Link		<u></u>
CFO Financial Reports ? _ □	Market Share 🛕		95%	95%	96%	96%	0%	96%	Link	•	°°
Name 🗢				· ·			-				
Cash Flow     Balance Sheet	Operational Expense Management	2011 Fiscal YTD		2011 Full Fiscal Year		Rolling 12 mo. Fcst Trends		Risk	тсм		
Income Statement			Actual	Target	Budget	Forecast	Variance				-20
What-If Analysis	SG&A%		21%	21%	21%	27%	7% 🗖	27%	Link		¢:
Name	Gross Margin%		60%	59%	59%	61%	2% 🔵	61%	Link		¢;
Statute Materia Manual States	Material Cost%		20%	20%	20%	19%	-1% 🔵	19%	Link		<b>C</b>
Setup     What-If Analysis - DSO	Distribution Expense%		5%	5%	5%	9%	4% 🔶	9%	Link		<u></u>
What-If Analysis - Product Sell	Headcount 🛓		6,352.0	6,405.0	6,397.0	6,402.0	0% 🔵	6,384.0	Link		¢ <b>3</b>
	Capital Management		2011 Fiscal YT	D	201	1 Full Fiscal Yea	r	Rolling 12 mo.	Trends	Risk	тсм
	suprai management		Actual	Target	Budget	Forecast	Variance	Fcst	Tondo	NUN	
	Capital Efficiency		\$9	\$7	\$9	\$9	1% 🔵	\$8	Link	•	<b>C</b>
	Quick Ratio		32.3	32.3	33.6	34.3	2% 🔵	37.5	Link		¢,
	DSO		29.2	29.4	50.1	56.8	13% 🔳	27.3	Link	٠	¢2
	Days Payable		18.0	17.5	21.9	30.9	41% 🔵	16.2	Link		¢2
	Days in Inventory		12.7	12.5	15.3	15.5	1% 🔵	11.4	Link		<b>C</b>

\$1,853,660

\$2,470,406

\$2,866,504

16% 📕 \$2,858,174

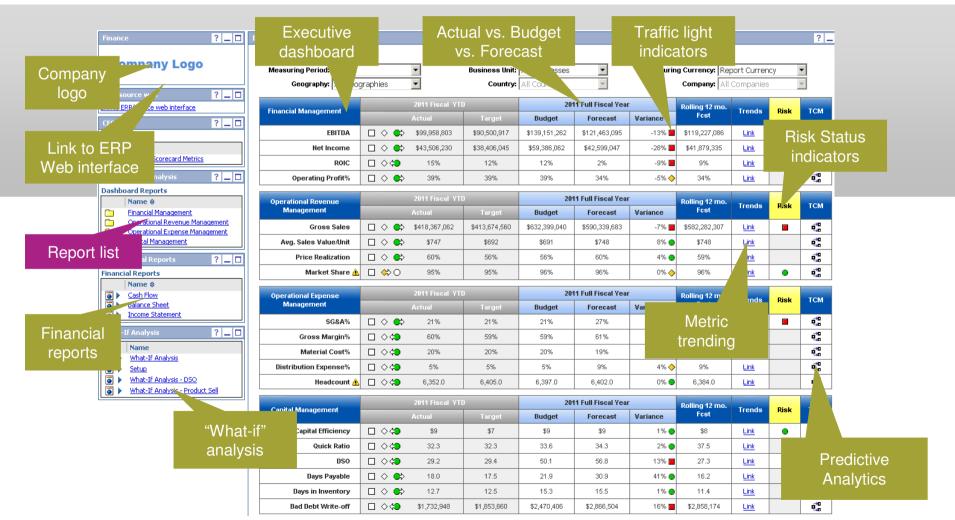
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#### Executive dashboard

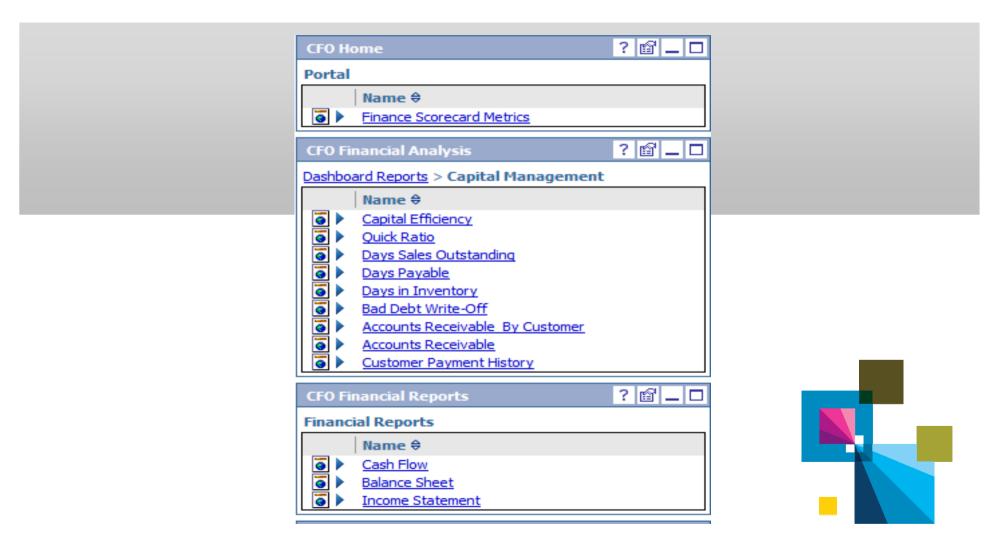


#### Executive dashboard





#### Standard GL/AR/AP reports

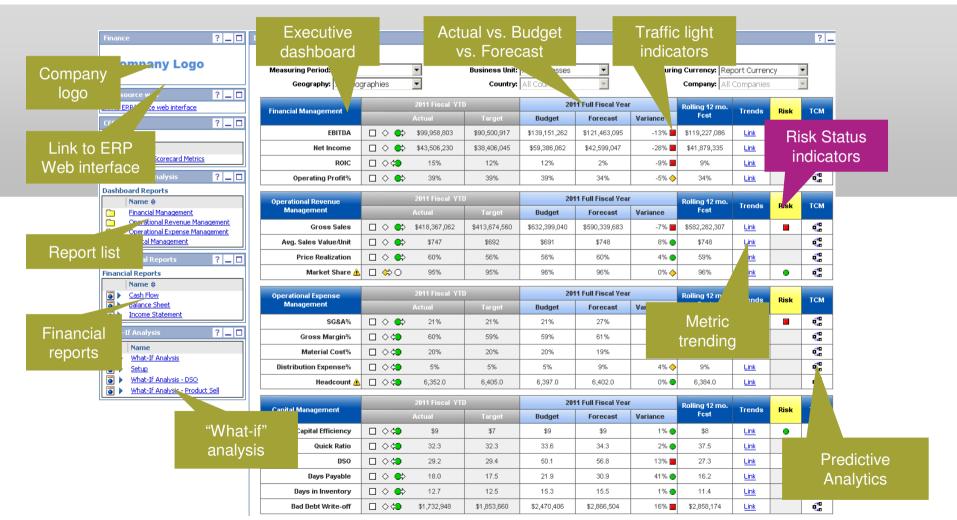




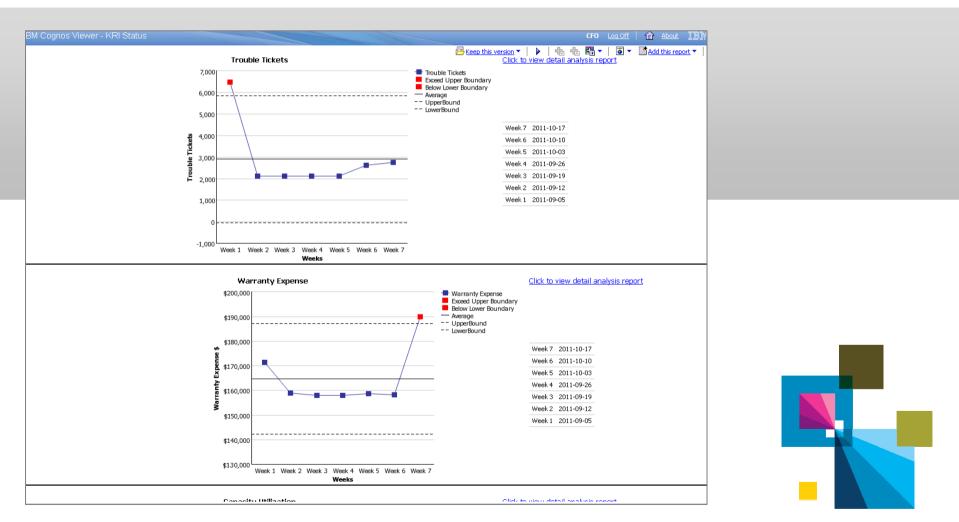
### Standard financial reports

	Back to default entry								
Company Logo	<u>Back to default entry</u>								
RP/source web ? 🛍 🗕 🗆					Balance	Sheet			
ik to ERP/source web interface							_	_	
FO Home ? 🗃 🗕 🗆	Select Year: 2011	•		Select Scenario:		•	·	Currency: R	eport Currency
rtal					All Geographies	•	-		
Name 🕀					All Countries				
Finance Scorecard Metrics				Company:	Air companies				
0 Financial Analysis ? 🛍 🔔 🗆		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
	ASSETS								
shboard Reports	Cash and Cash Equivalents	\$50,418,693	\$50,122,573	\$55, 157, 194	\$61,182,624	\$62,870,526	\$68,300,626	\$64,957,248	\$63,575,76 <sup>,</sup>
Name ♦ Financial Management	Accounts Receivable	\$11,979,854	\$16,426,563	\$15,507,413	\$12,457,007	\$15,190,886	\$12,680,244	\$22,272,903	\$31,173,81
Operational Revenue Management	Bad Debt Allowance	\$4,148,430	\$4,483,416	\$4,814,499	\$5,106,226	\$5,415,701	\$5,762,077	\$6,103,236	\$6,416,52
Operational Expense Management	Receivables	\$7,831,424	\$11,943,147	\$10,692,914	\$7,350,781	\$9,775,185	\$6,918,167	\$16,169,668	\$24,757,29
Capital Management	Inventory	\$2,986,880	\$3,594,367	\$3,387,012	\$3,118,967	\$3,384,618	\$3,062,086	\$4,055,255	\$4,664,67
)Financial Reports ? 🛍 💶 🗆	Current Assets	\$61,236,997	\$65,660,087	\$69,237,120	\$71,652,372	\$76,030,329	\$78,280,880	\$85, 182, 171	\$92,997,73
ancial Reports	Property, Plant and Equipment - Cost	\$41,575,919	\$44,696,124	\$47,938,154	\$51,189,810	\$54,307,851	\$57,560,307	\$60,785,860	\$64,030,67
Name 🗢	Accumulated Depreciation	(\$1,851,384)	(\$1,982,175)	(\$2,113,302)	(\$2,229,564)	(\$2,359,364)	(\$2,473,775)	(\$2,632,424)	<b>(</b> \$2,817,71 <sup>,</sup>
<u>Cash Flow</u> Balance Sheet	Property, Plant and Equipment	\$39,724,536	\$42,713,949	\$45,824,852	\$48,960,246	\$51,948,487	\$55,086,531	\$58,153,437	\$61,212,96
Income Statement	Assets	\$100,961,533	\$108,374,036	\$115,061,972	\$120,612,618	\$127,978,816	\$133,367,411	\$143,335,608	\$154,210,69
nat-If Analysis 🛛 ? 🛍 💶 🗖	LIABILITIES								
	Accounts Payable	\$4,328,095	\$4,958,052	\$4,961,101	\$4,397,849	\$4,978,736	\$4,388,306	\$6,020,357	\$7,023,97
Name	Interest Payable	\$370,534	\$396,824	\$424,374	\$448,885	\$475,616	\$497,015	\$533,677	\$568,51
What-If Analysis     Setup	Payables	\$4,698,629	\$5,354,875	\$5,385,475	\$4,846,734	\$5,454,351	\$4,885,321	\$6,554,033	\$7,592,48
<u>Setup</u> What-If Analysis - DSO	Wages and Salaries	\$3,683,280	\$3,918,850	\$4,121,997	\$4,352,162	\$4,573,521	\$4,817,717	\$5,128,707	\$5,483,17
What-If Analysis - Product Sell	Taxes and Fees	\$13,549,243	\$14,614,824	\$15,511,440	\$16,456,159	\$17,557,922	\$18,534,393	\$19,885,836	\$21,402,52
	Current Deferred Taxes	(\$6,021,886)	(\$6,495,477)	(\$6,893,974)	(\$7,313,847)	(\$7,803,522)	(\$8,237,509)	(\$8,838,149)	(\$9,512,23)
	ETC	\$11,261,148	\$12,012,562	\$12,808,779	\$13,497,838	\$14,312,873	\$14,965,993	\$15,989,460	\$17,113,02
	Accruals	\$22,471,785	\$24,050,759	\$25,548,243	\$26,992,312	\$28,640,794	\$30,080,593	\$32,165,854	\$34,486,48
	Short-term Debt	\$403,723	\$440,046	\$474, 196	\$506,528	\$537,287	\$566,003	\$597,702	\$628,63
	Current Liabilities	\$27,574,137	\$29,845,680	\$31,407,914	\$32,345,574	\$34,632,433	\$35,531,917	\$39,317,590	\$42,707,60
	Product Warranties	\$7,518,113	\$8,048,405	\$8,551,967	\$9,080,947	\$9,589,585	\$10,047,716	\$10,583,876	\$11,379,41
	Provisions	\$7,518,113	\$8,048,405	\$8,551,967	\$9,080,947	\$9,589,585	\$10,047,716	\$10,583,876	\$11,379,41

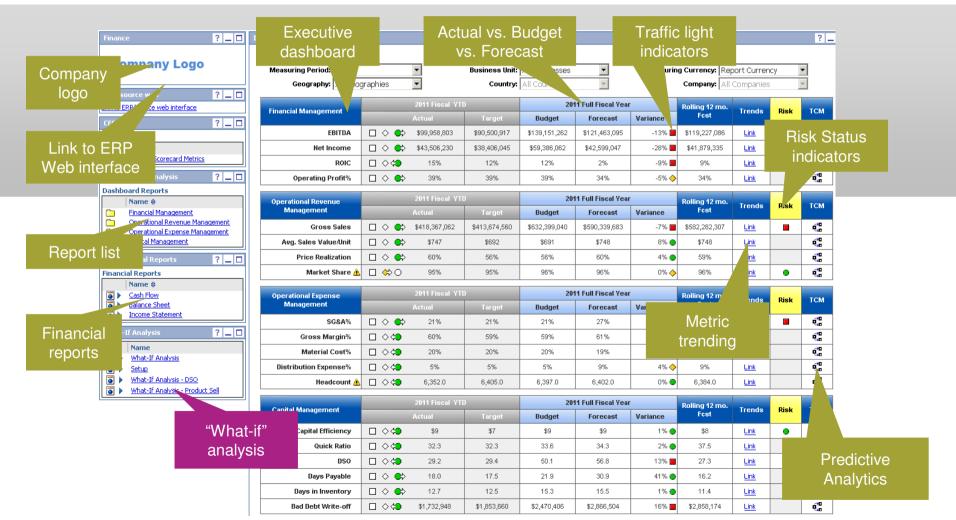
#### Executive dashboard



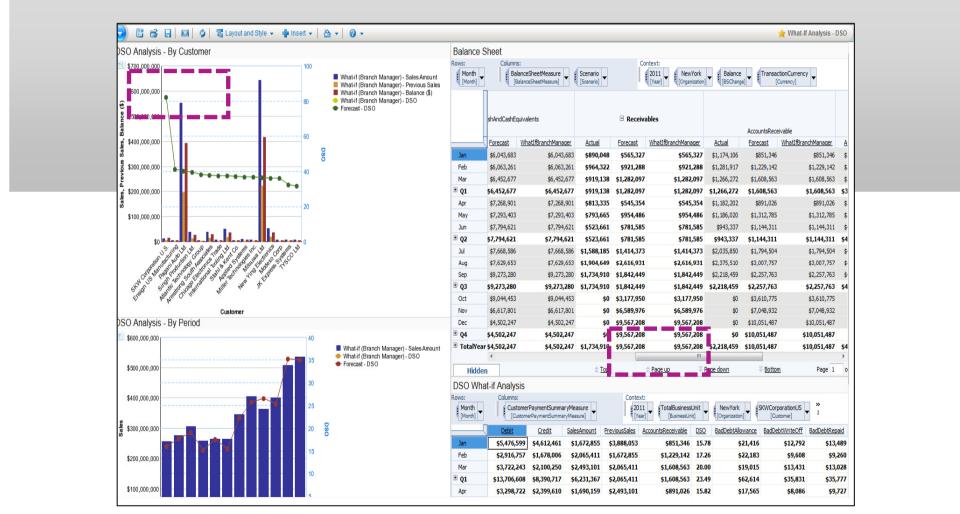
#### Key risk indicators provide early warnings to potential weaknesses



#### Executive dashboard



# Integrated what-if analysis: provides an in-depth view on impact of alternative business forecast assumptions, all on a single page view

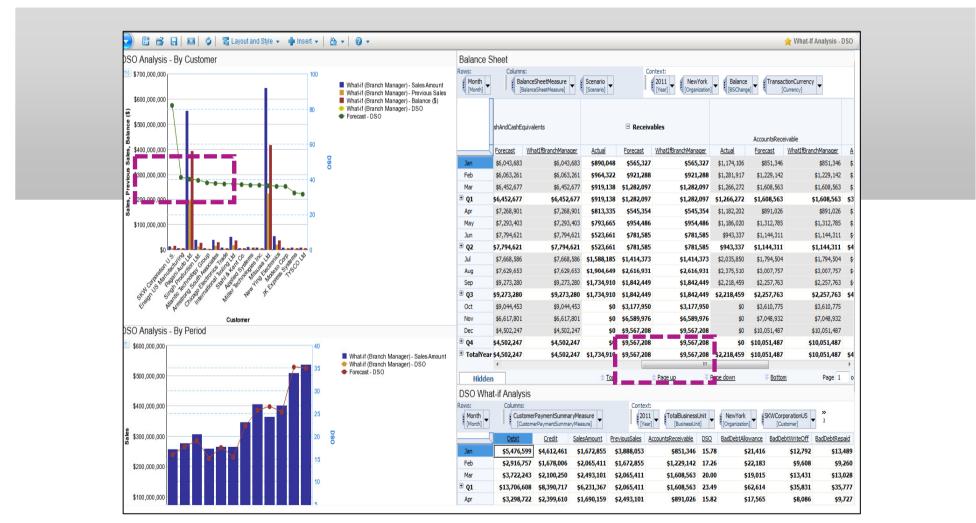


## **IBM Finance Forum 2013** Smarter Analytics. Smarter Outcomes.

Rows: Month [Month]		PaymentSumma erPaymentSumma		Conte 20 [Ye	11 🖉 TotalBusinessl	-	NewYork [Organization]	KWCorporationUS [Customer]
	<u>Debit</u>	Credit	SalesAmount	PreviousSales	AccountsReceivable	<u>DSO</u>	BadDebtAllowance	BadDebtWriteOff
Mar	\$13,706,608	\$8,390,717	\$6,231,367	\$2,065,411	\$1,608,563	23.49	\$62,614	\$35,831
± Q1	\$3,298,722	\$2,399,610	\$1,690,159	\$2,493,101	\$891,026	15.82	\$17,565	\$8,086
Apr	\$3,030,933	\$1,705,597	\$2,139,907	\$1,690,159	\$1,312,785	19.02	\$11,956	\$12,551
May	\$3,222,302	\$2,063,330	\$1,909,517	\$2,139,907	\$1,144,311	17.98	\$8,282	\$14,661
Jun	\$9,461,826	\$6,168,537	\$5,739,583	\$2,139,907	\$1,144,311	18.14	\$37,803	\$35,298
⊕ Q2	\$3,702,553	\$1,892,842	\$2,558,242	\$1,909,517	\$1,794,504	21.75	\$24,102	\$15,206
Jul	\$5,261,292	\$2,239,100	\$3,466,788	\$2,558,242	\$3,007,757	26.90	\$15,944	\$14,436
Aug	\$5,998,379	\$3,722,866	\$2,990,622	\$3,466,788	\$2,257,763	22.65	\$22,808	\$17,750
Sep	\$12,237,954	\$7,854,808	\$9,015,652	\$3,466,788	\$2,257,763	23.04	\$62,854	\$47,392
± Q3	\$5,758,227	\$2,134,842	\$3,500,464	\$2,990,622	\$3,610,775	31.98	\$21,661	\$12,611
Oct	\$7,375,297	\$318,531	\$3,764,522	\$3,500,464	\$7,048,93	30.17	\$22,937	\$7,834
Nov	\$10,997,032	\$939,311	\$3,948,100	\$3,764,522	\$10,051,487	78.92	\$22,040	\$6,234
Dec	\$17,211,465	\$3,392,683	\$11,213,086	\$3,764,522	\$10,051,487	82.47	\$66,638	\$26,679
± Q4	\$17,211,465	\$3,392,683	\$11,213,086	\$3,764,522	\$10,051,487	82.47	\$229,909	\$145,200

Change DSO for Nov and Dec from 78.92 and 82.47 DSO to 35.00 and 35.00

lows:	Columns:			Conte	xt:			/
Month [Month]		rPaymentSumma erPaymentSumma		20 [Y	-		NewYork [Organization]	KWCorporationUS [Customer]
	<u>Debit</u>	Credit	SalesAmount	PreviousSales	AccountsReceivable	DSO	BadDebtAllowange	BadDebtWriteOff
Mar	\$3,722,243	\$2,100,250	\$2,493,101	\$2,065,411	\$1,608,563	20.00	\$19,015	\$13,431
± Q1	\$13,706,608	\$8,390,717	\$6,231,367	\$2,065,411	\$1,608,563	23.49	\$62,614	\$35,831
Apr	\$3,298,722	\$2,399,610	\$1,690,159	\$2,493,101	\$891,026	15.82	\$17,565	\$8,086
May	\$3,030,933	\$1,705,597	\$2,139,907	\$1,690,159	\$1,312,785	19.02	\$11,956	\$12,551
Jun	\$3,222,302	\$2,063,330	\$1,909,517	\$2,139,907	\$1,144,311	17.98	\$8,282	\$14,661
± Q2	\$9,461,826	\$6,168,537	\$5,739,583	\$2,139,907	\$1,144,311	18.14	\$37,803	\$35,298
Jul	\$3,702,553	\$1,892,842	\$2,558,242	\$1,909,517	\$1,794,504	21.75	\$24,102	\$15,206
Aug	\$5,261,292	\$2,239,100	\$3,466,788	\$2,558,242	\$3,007,757	26.90	\$15,944	\$14,436
Sep	\$5,998,379	\$3,722,866	\$2,990,622	\$3,466,788	\$2,257,763	22.65	\$22,808	\$17,750
± Q3	\$12,237,954	\$7,854,808	\$9,015,652	\$3,466,788	\$2,257,763	23.04	\$62,854	\$47,392
Oct	\$5,758,227	\$2,134,842	\$3,500,464	\$2,990,622	\$3,610,775		\$21,661	\$12,611
Nov	\$7,375,297	\$2,975,520	\$3,764,522	\$3,500,464	\$4,391,942	35.00	\$22,937	\$7,834
Dec	\$8,340,042	\$3,876,276	\$3,948,100	\$3,764,522	\$4,457,532	35.00	\$22,040	\$6,234
± Q4	\$17,211,465	\$8,986,638	\$11,213,086	\$3,764,522	\$4,457,532	50.57	\$66,638	\$26,679
TotalYear	\$17,211,465	\$8,986,638	\$11,213,086	\$3,764,522	\$4,457,532	36.57	\$229,909	\$145,200



#### Executive dashboard





# Temporal causal modeling: automatically discovers causal relationships between drivers and KPIs

## Proprietary algorithms developed by IBM Watson Research Center, that answer the following:

#### Which metrics have the most impact on my performance?

- Use historical data to discover those metrics that have the strongest impact on selected business objectives, directly or indirectly
- Use historical data to evaluate the strength of user-specified metric relationships

#### How do these metrics interact with each other?

• Use historical data to discover significant causal relationships among metrics: time lag between metrics, strength, degrees of separation.

#### What is driving my performance?

Use identified causal relationships to automatically discover the metric values driving observed performance

#### If nothing else changes, what will my future performance be?

 Use causal-temporal model to project future performance based on historical data

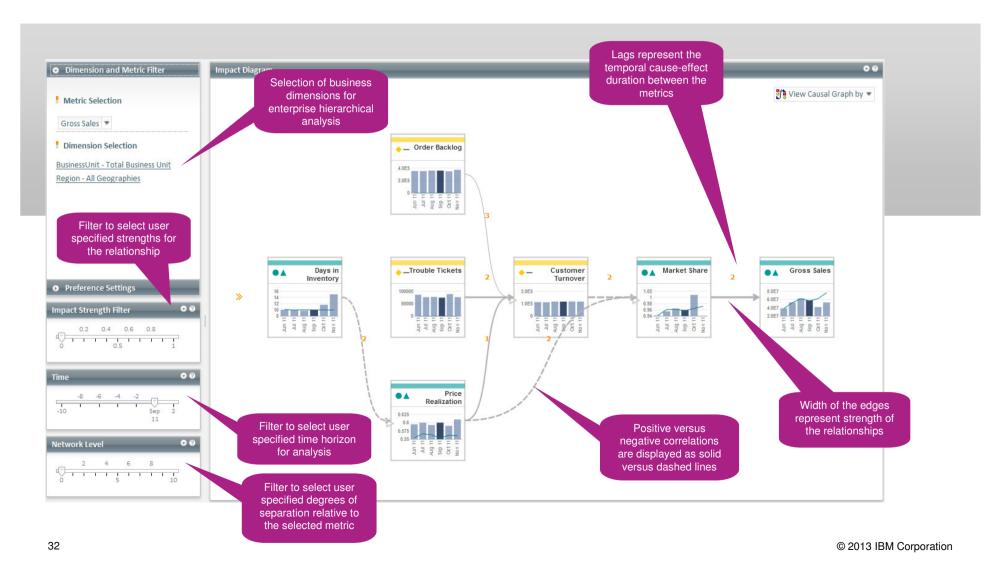


## oral Causal

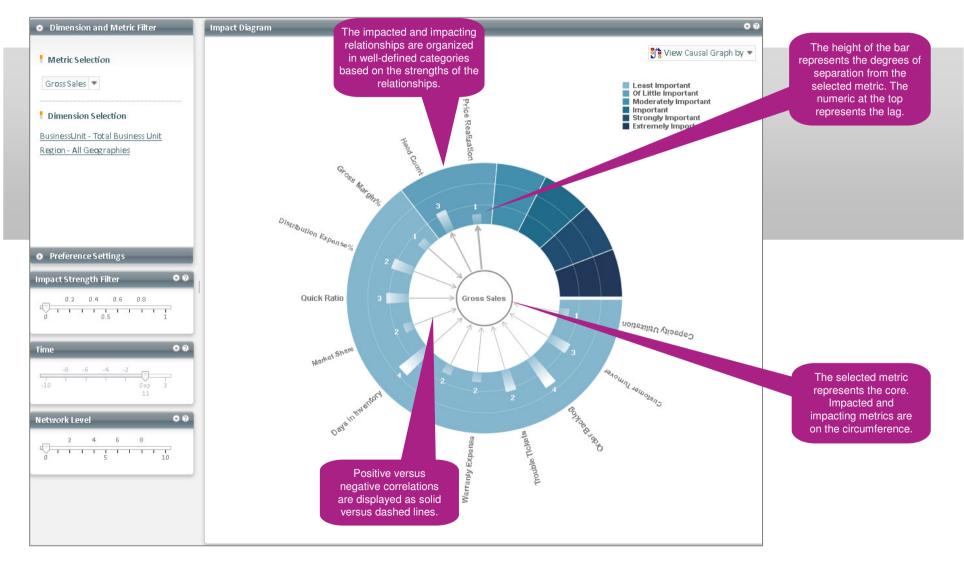
#### Temporal Causal Modeling • Discover causal

- relationships
- Assess lead-lag indicators
- Examine strength of metrics relationships and degrees of separation
- Anticipate the momentum of metrics drivers

# Automatically creates causal lead-lag diagrams and provide insight into interactions among business metrics

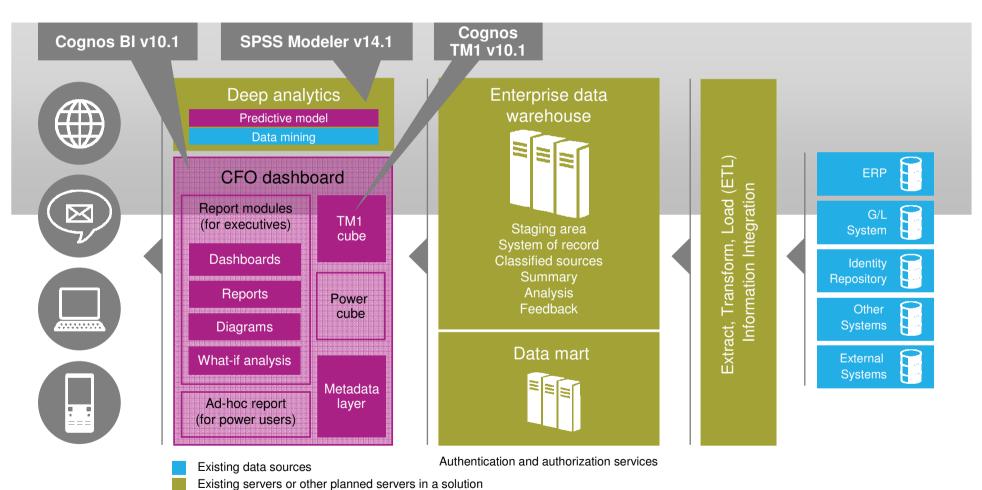


#### Intuitive visualization enables insights into large scale networks





#### Solution architecture



- Potential existing reporting components available at the client
- IBM BAO—CFO performance dashboard



### Solution capabilities summary

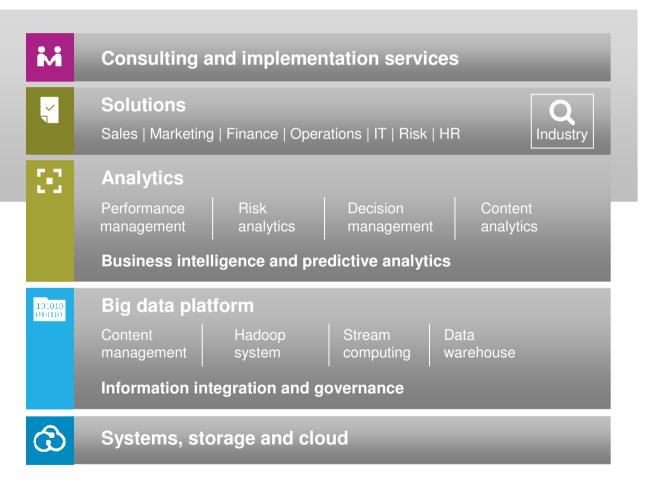
- Timely, reliable visibility into performance gaps between forecast, targets and actuals for critical KPIs
- Built-in KRIs to identify areas of weakness
- Proprietary statistical model automatically discovers relationships between drivers and KPIs based on historical data; and creates more reliable baseline forecasts.
- Guided root-cause analysis
- Easy access to standard GL/AR/AP reports
- Integrated what-if analysis and scenario planning





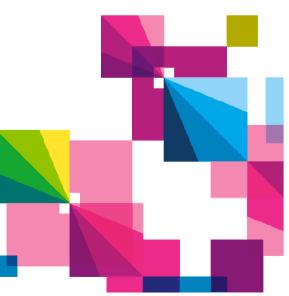
## The IBM advantage

- Over \$14B in acquisitions since 2005
- More than 10,000 technical professionals
- Over 7,700 dedicated Business Analytics and Optimization (BAO) consultants
- Largest math department in private industry
- Deep, vertical strategy and business process expertise across 17 industries and all geographies of the world
- More than 40 proven, industrybased and domain solutions
- More than 27,000 Business Partner Certifications
- A network of Analytics Solution Centers across the world





# Questions and Answers



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