

Analytics-Based Enterprise Performance Management

(A miniMBA in 60 minutes)

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Institute of Industrial and Systems Engineers (IISE)

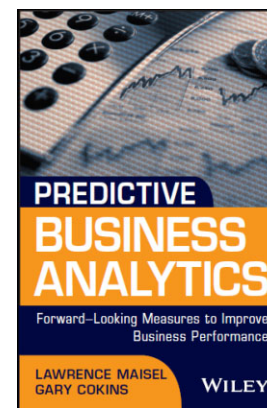
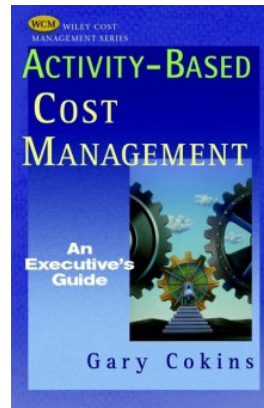
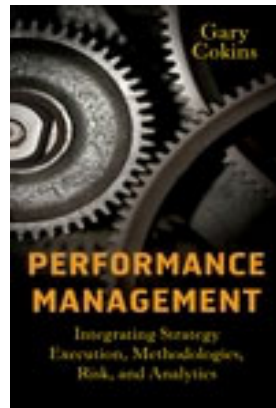
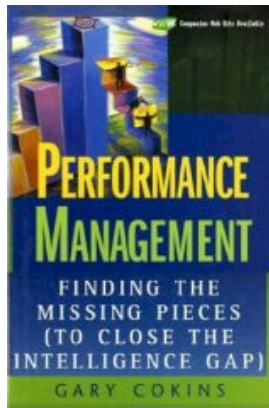
July 15, 2023

About Gary Cokins, CPIM

Founder, Analytics-Based Performance Management LLC

B.S. Industrial Engineering & Operations Research;
Cornell University, 1971

M.B.A. Finance & Accounting; Northwestern University,
Kellogg School of Management, 1974



Previous Associations:

- FMC Link-Belt Corporation
- Consultant with: Deloitte, KPMG, Electronic Data Systems [EDS, now HP]
- SAS

Who will benefit from this presentation?

Professionals who have previously struggled at promoting FP&A, enterprise performance management (EPM) and integrating business analytics (BA) into their decision support systems.

Professionals who intend to “champion” any or all EPM and BA improvement techniques and need a compelling call to action.

AGENDA

- **What is Enterprise Performance Management?**
- **What is Business Analytics?**
- **Eight Pressures that have caused interest in EPM**
- **EPM as a Value Multiplier through Integration**

Confusion and Lack of Consensus about EPM

Is it human resources PM?

Is it scorecards, dashboards, KPIs and measures?

Is it alignment, such as strategic or resource allocation?

Is it process, productivity and quality improvement?

Or ... is it all of the above? And even more?

The good news is this

What is Analytics-based Performance Management?

Analytics-based Enterprise Performance Management is the integration of multiple methods with each embedded with business analytics, such as segmentation analysis, and especially predictive analytics ... to achieve the strategy and to make better decisions.

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Work backwards with the end in mind.

Regardless of how “analytics” should be defined, there should be no argument as to its purpose:

Better decisions. Better Actions.

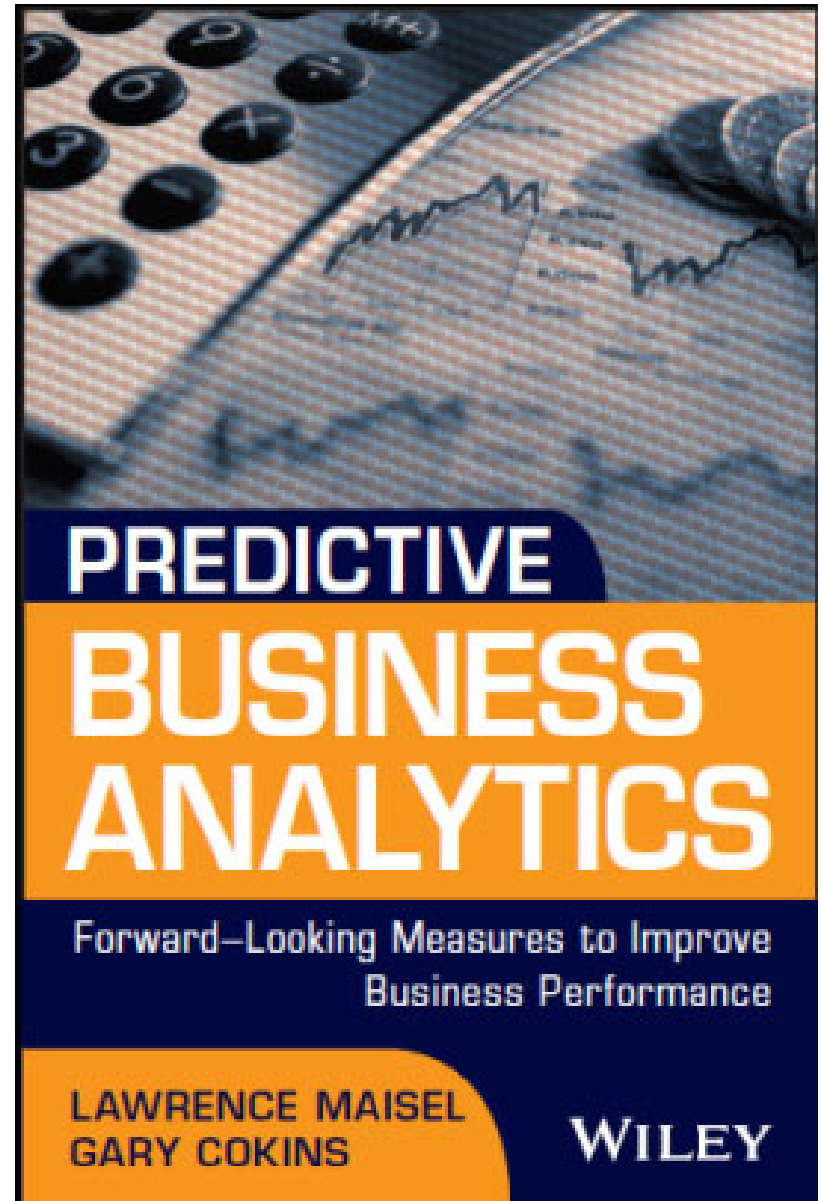
Analytics’ goal should be to gain insights and foresight and solve problems, to make better and quicker decisions with more accurate and fact-based data, and to take actions.

My Co-authored Book

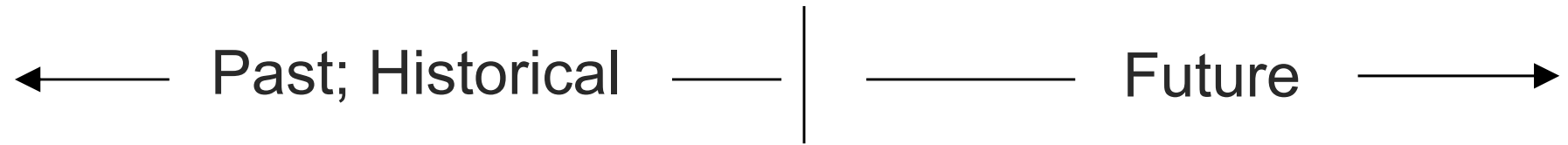
<https://www.wiley.com/en-us/Predictive+Business+Analytics%3A+Forward+Looking+Capabilities+to+Improve+Business+Performance-p-9781118240151>

This link is to chapter 1:

http://media.wiley.com/product_data/excerpt/65/11181755/1118175565-13.pdf



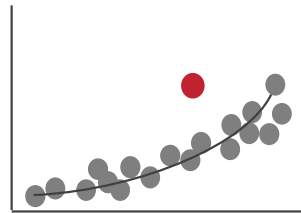
The Analytical Continuum



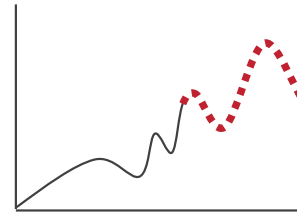
Descriptive



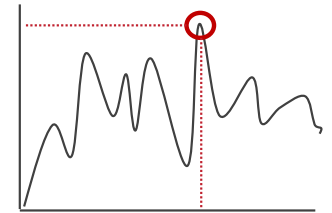
Diagnostic



Predictive



Prescriptive



AGENDA

- **What is Performance Management?**
- **What is Business Analytics?**
- **Eight Pressures that have caused interest in EPM**
- **EPM as a Value Multiplier through Integration**

What has caused interest in EPM?

- 1 Executives frustrations with strategy failure.**
- 2 Increased accountability.**
- 3 More rapid decision making.**
- 4 Mistrust of the managerial accounting system for transparency.**
- 5 Poor customer value management**
- 6 Contentious budgeting – poor resource capacity planning.**
- 7 Dysfunctional supply chain management.**
- 8 Unfulfilled ROI promises from IT systems – lack of integration.**

What has caused interest in EPM?

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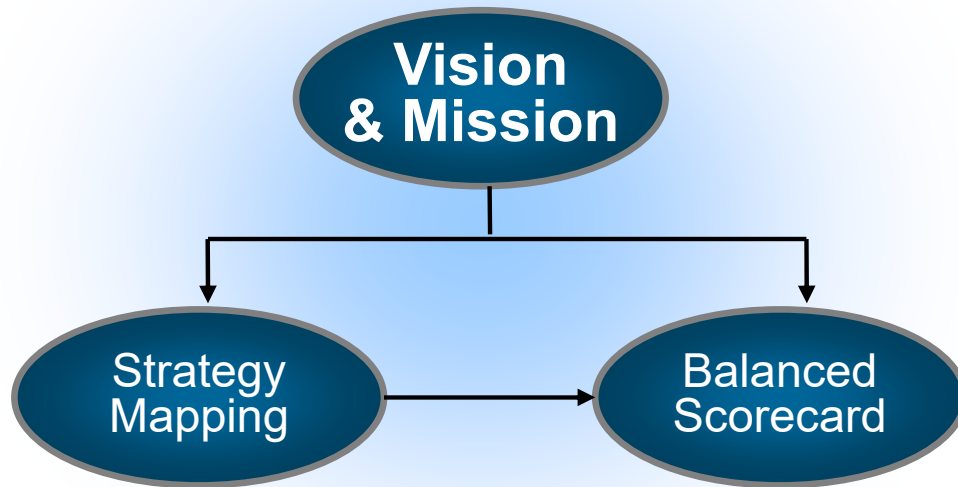
7 Dysfunctional supply chain management.

8 Unfulfilled ROI promises from IT systems – lack of integration.

What has Caused Interest in EPM?

- 1) Failure by executives to execute their well-formulated strategy.

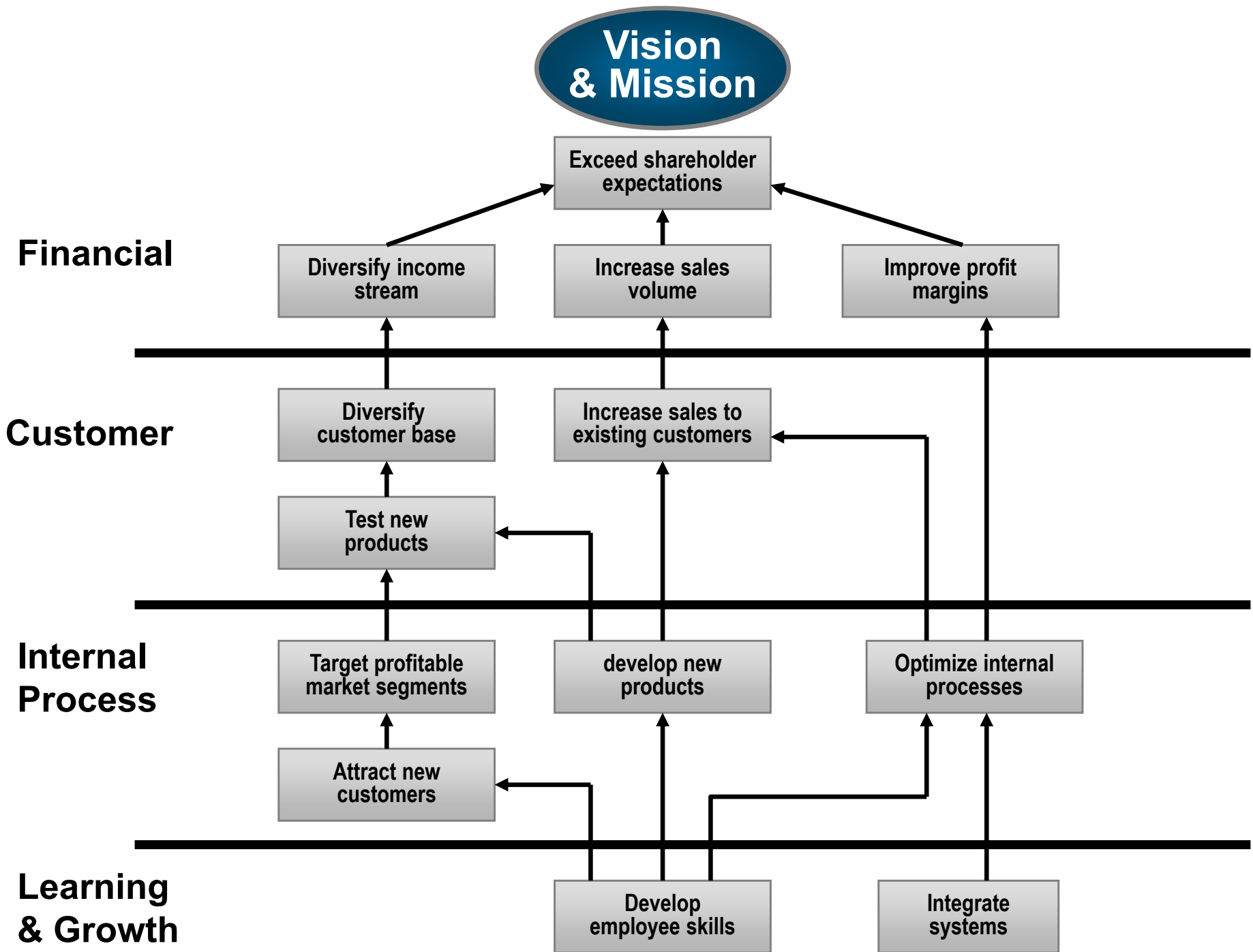
Vision and Mission Statements

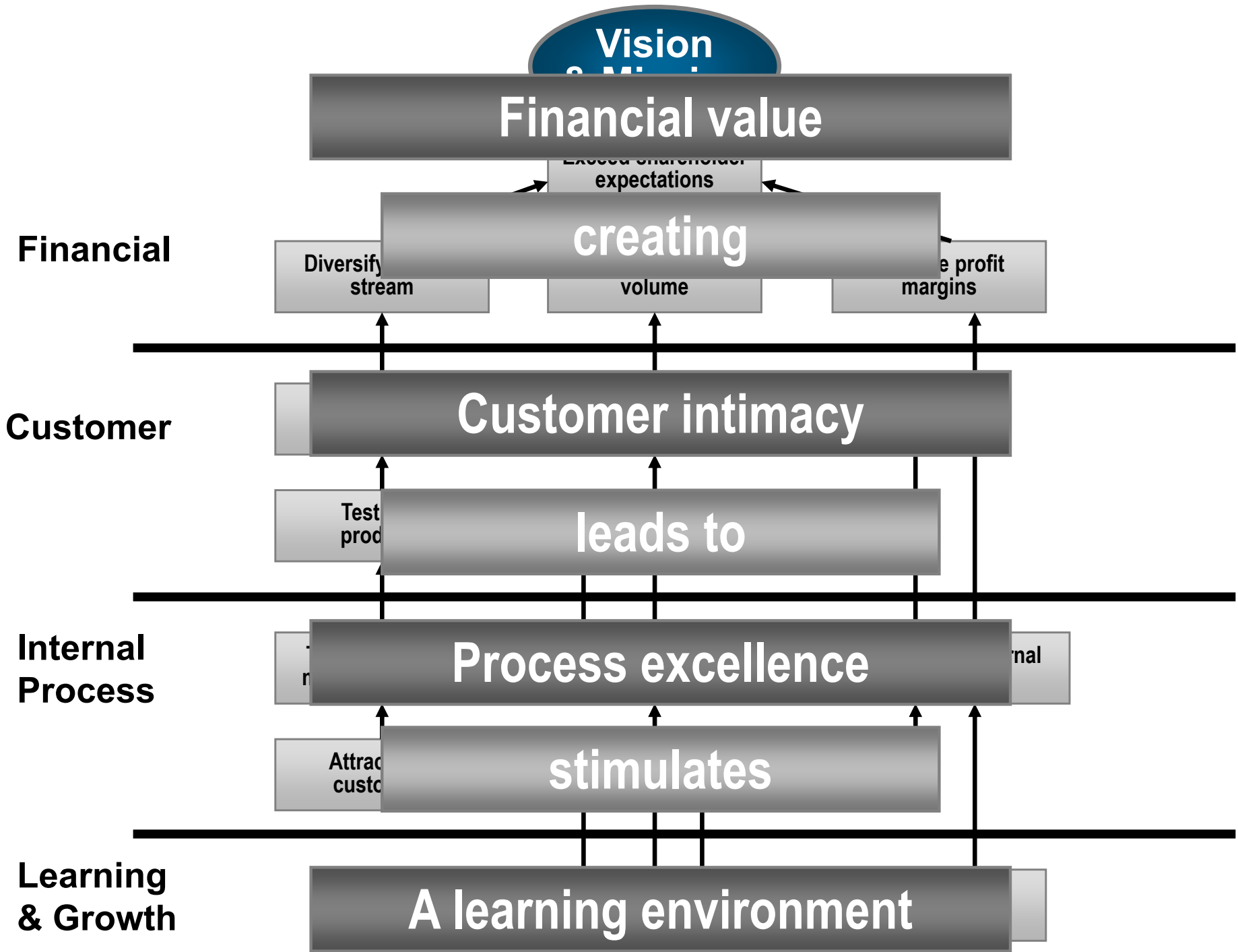


A Vision statement answers
“where do we want to go?”

Strategy maps and their balanced
scorecards answer,
“How will we get there?”

The strategy map and its balanced scorecard are
mechanical. They help realize the vision and mission.





The Key to Scorecards

How does everyone answer this single question:

“How am I doing on what is important?”

A strategy map and Balanced Scorecard provide this answer.

The overriding purpose of a strategy map and balanced scorecard system is to make mission and strategy everyone’s job.

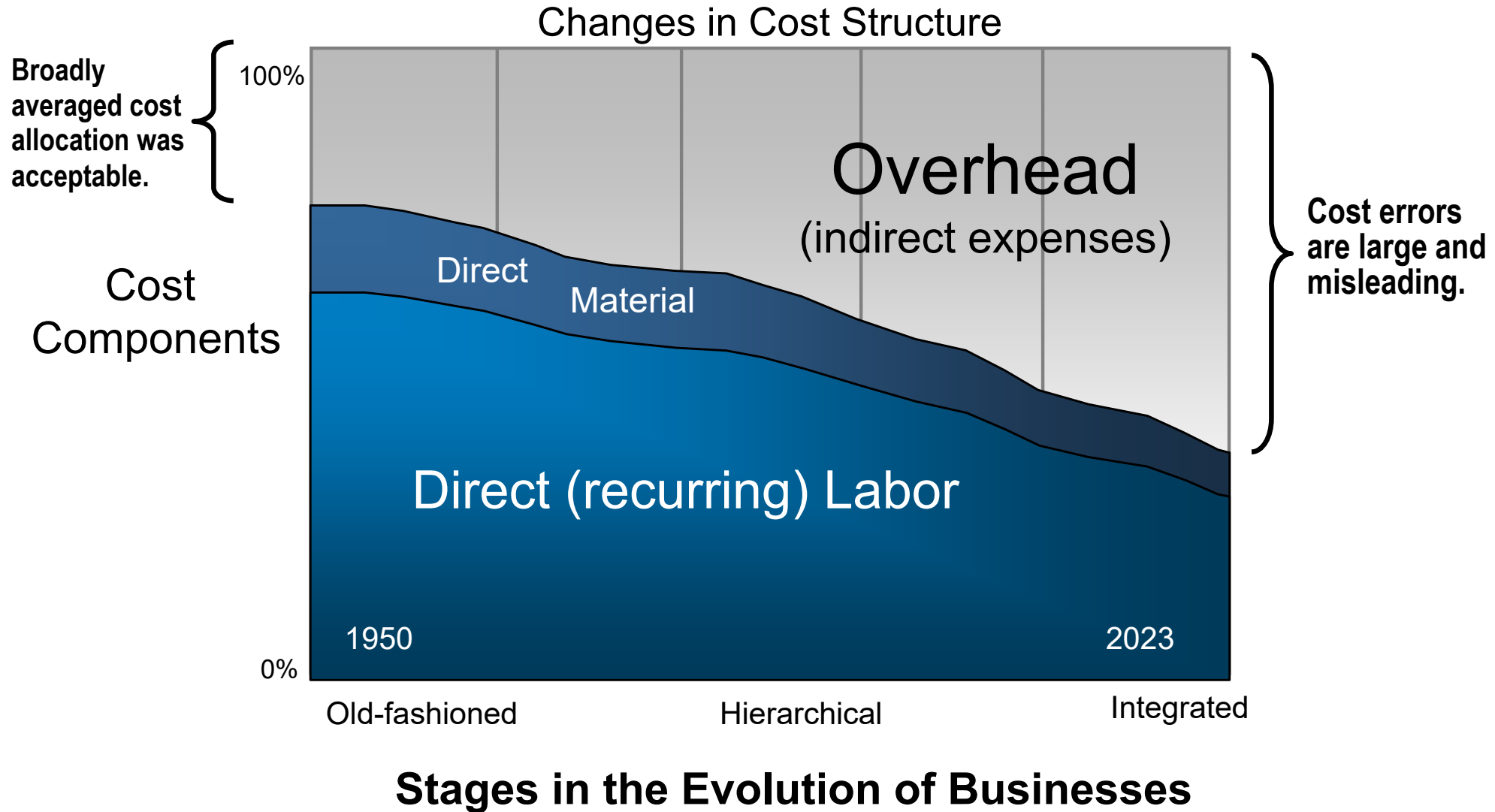
What has Caused Interest in EPM?

- 4) Mistrust of the managerial accounting system and its flawed cost allocations and misleading cost reporting of outputs, products, standard service-lines, channels, customers and outcomes.

**A simple explanation of ABC ...
that you can explain to your
spouse (or boss) tonight.**



The Need for Tracing, not Allocating, Costs



The General Ledger View is Structurally Deficient for Decision Analysis.

From: General Ledger

Chart-of-Accounts View

Claims Processing Department

	<u>Actual</u>	<u>Plan</u>	<u>Favorable/ (unfavorable)</u>
Salaries	\$621,400	\$600,000	\$(21,400)
Equipment	161,200	150,000	(11,200)
Travel expense	58,000	60,000	2,000
Supplies	43,900	40,000	(3,900)
Use and occupancy	30,000	30,000	—
Total	\$914,500	\$880,000	\$(34,500)

To: ABC Data Base

Activity-Based View

Claims Processing Dept

Key/scan claims	\$ 31,500	← #of —
Analyze claims	121,000	← #of —
Suspend claims	32,500	← #of —
Receive provider inquiries	101,500	← #of —
Resolve member problems	83,400	← #of —
Process batches	45,000	← #of —
Determine eligibility	119,000	← #of —
Make copies	145,500	← #of —
Write correspondence	77,100	← #of —
Attend training	158,000	← #of —
Total	\$914,500	

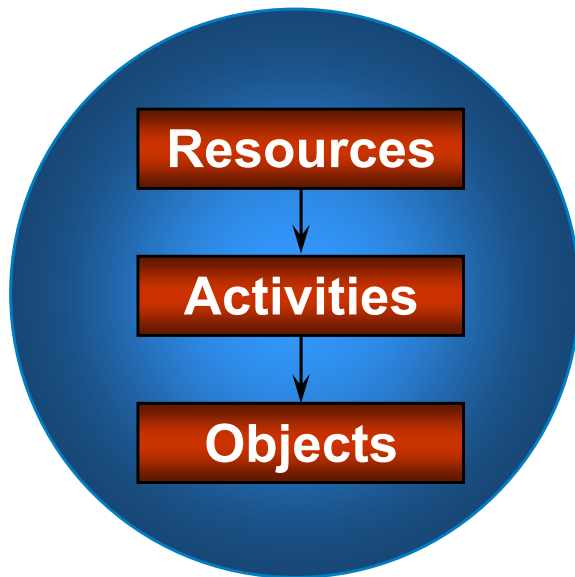
Activity cost drivers

Products / customers

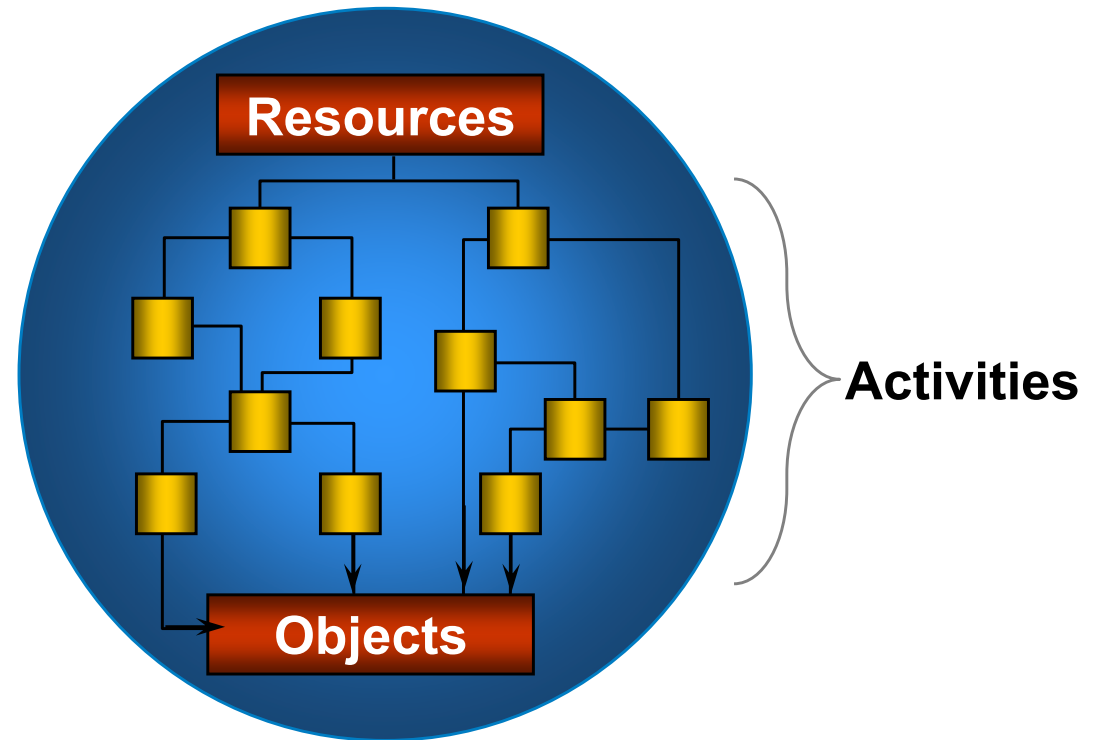
\$914,500

When managers get this kind of report, they are either happy or sad, but they are rarely any smarter!

Multiple-Stage Cost Flowing



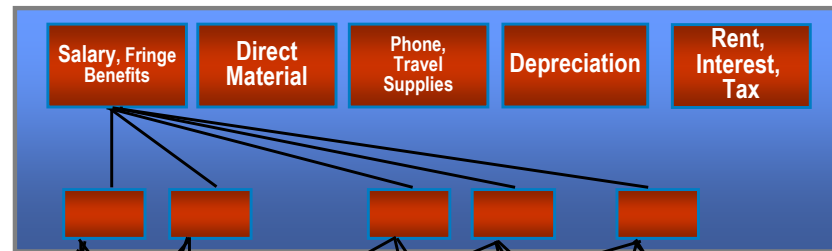
**Simple
ABC**



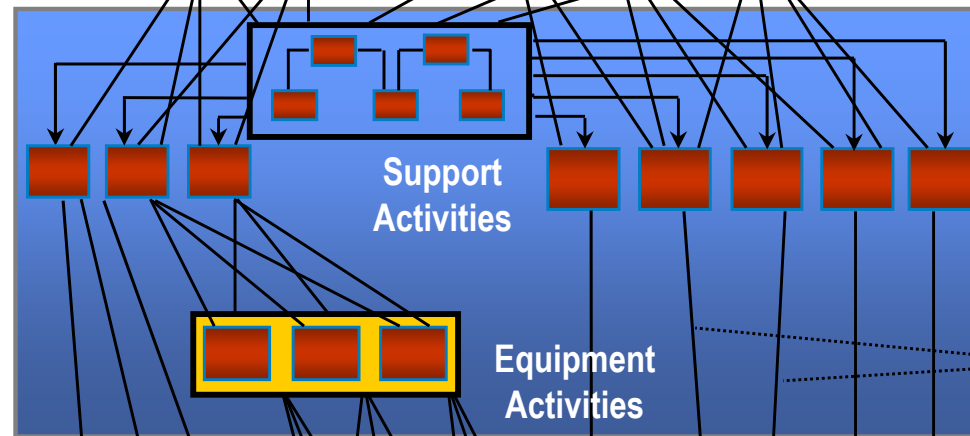
**Expanded
ABC**

ABC/M Cost Assignment Network

Resources
(general ledger view)



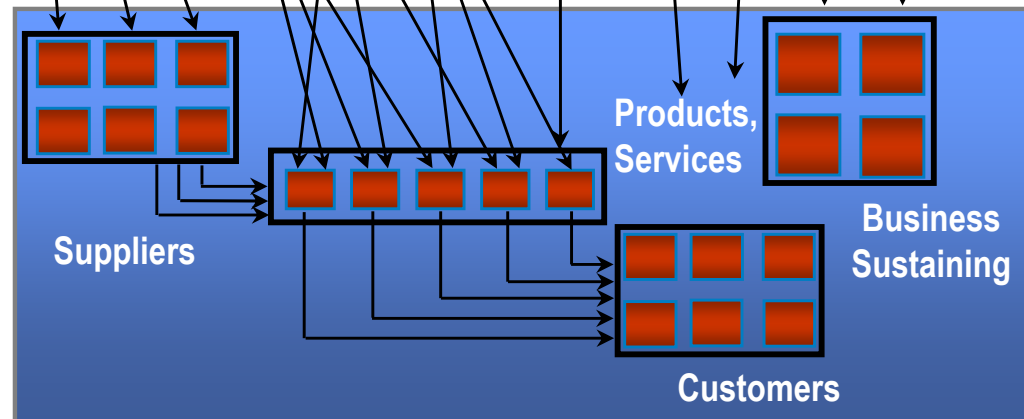
Work Activities
(verb-noun)



People Activities

Final Cost Objects

"Costs Measure the Effects"
(1) Demands On Work
Costs (2)



"cost-to-serve" paths

Further detail readings

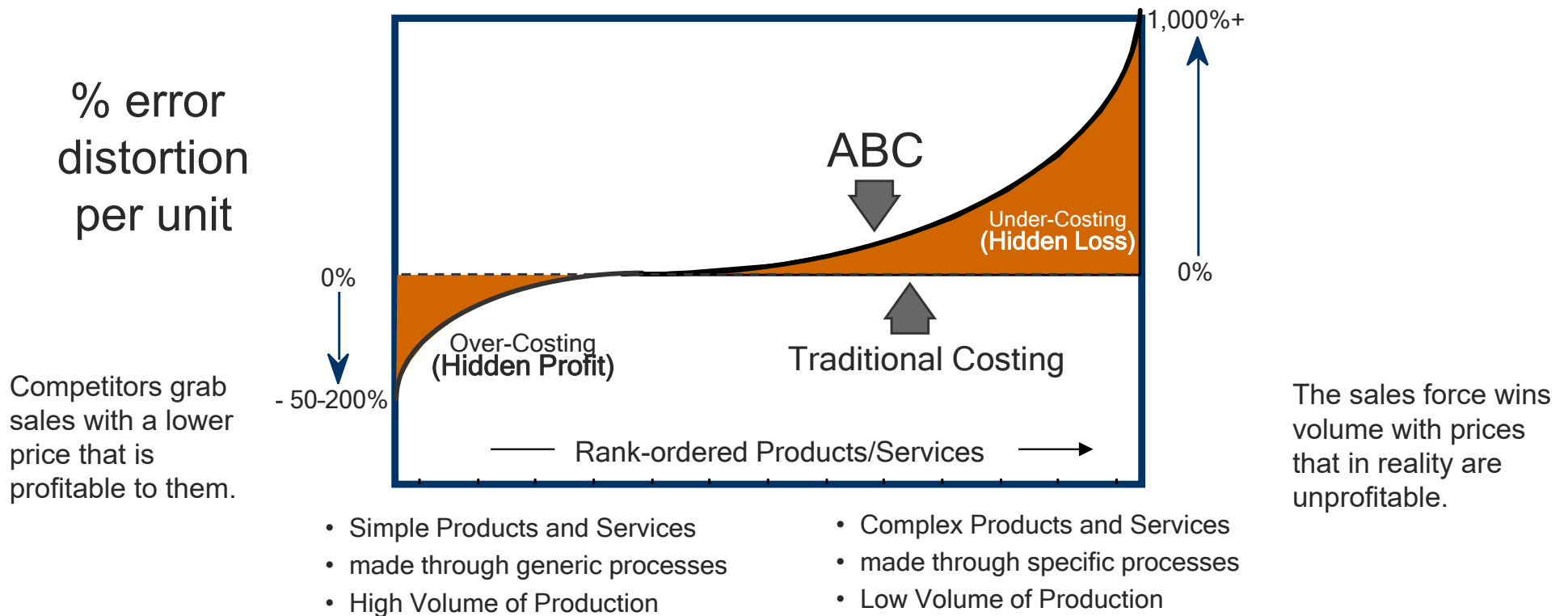
To read in more detail about the multi-stage ABC cost assignment network, below is a link to content that I have authored.

It is titled “A Statement on Management Accounting – Implementing ABC”.

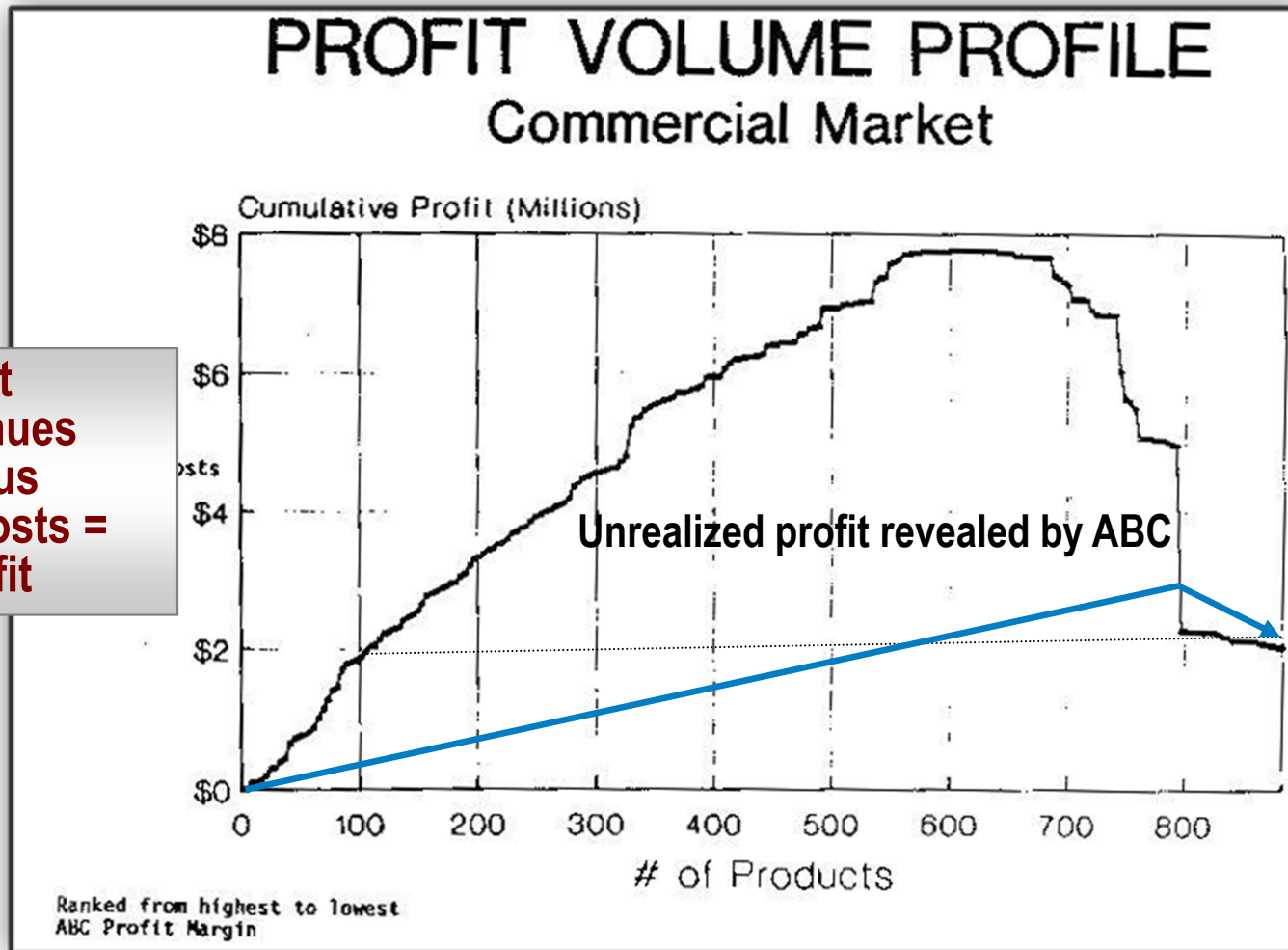
I wrote it for the Institute of Management Accounting (IMA) at www.imanet.org

<https://www.imanet.org//-/media/d5beff30c5864c7383e6ebb61556bab3.ashx?as=1&mh=200&mw=200&hash=E34259B80CE1AC68ED6AB8363D05635AE19BAB91>

Standard Costing Over- and Under-Costs Products



More important than a better costing method are its results.



**Net
Revenues
Minus
ABC costs =
profit**

$$\begin{array}{r} \$ 30 \text{ sales} \\ - 28 \text{ expenses} \\ \hline = \$ 2 \text{ profit} \end{array}$$

← \$ 2 profit

What has Caused Interest in ABPM?

5) Strategic – The shift from being product-centric to customer centric.

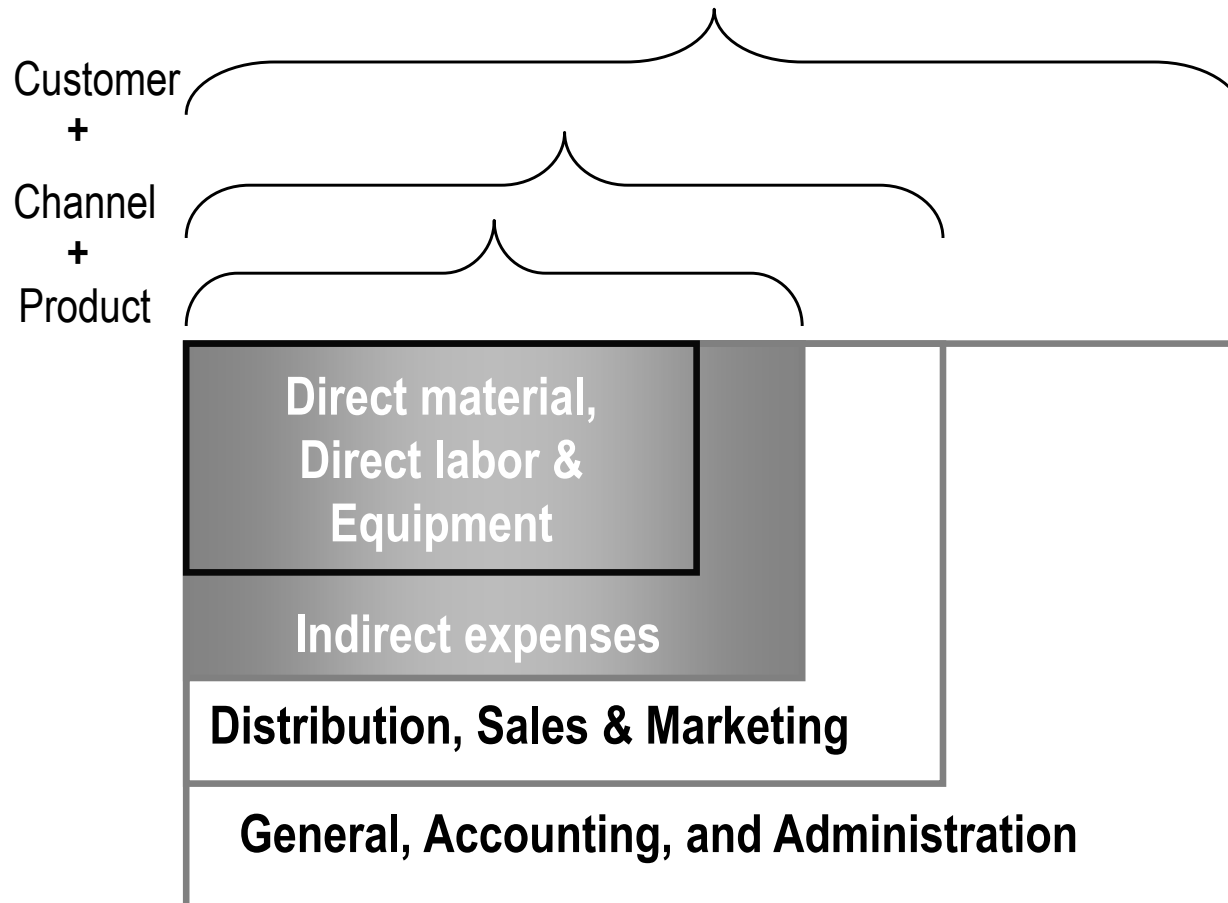
Value of Company = f(Value from Customers)

The only value a company will ever create is the value that comes from its customers – the current ones and the new ones acquired in the future.

To remain competitive, one must determine how to keep customers longer, grow them into bigger customers, make them more profitable, serve them more efficiently, and acquire relatively more profitable customers.

Source: Don Peppers and Martha Rogers, Peppers & Rogers Group (edited)

So what about the Other Below-the-line “Calculated” Costs?



Why Do Customer-related Costs Matter?

As differentiation from product advantages is reduced or neutralized, the customer relationship grows in importance. ...

... thus the *cost-to-serve* component of each customer's profit contribution requires measurement and visibility.

ABC measures how resource expenses are uniquely consumed by each diverse customer.

High and Low Maintenance Customers

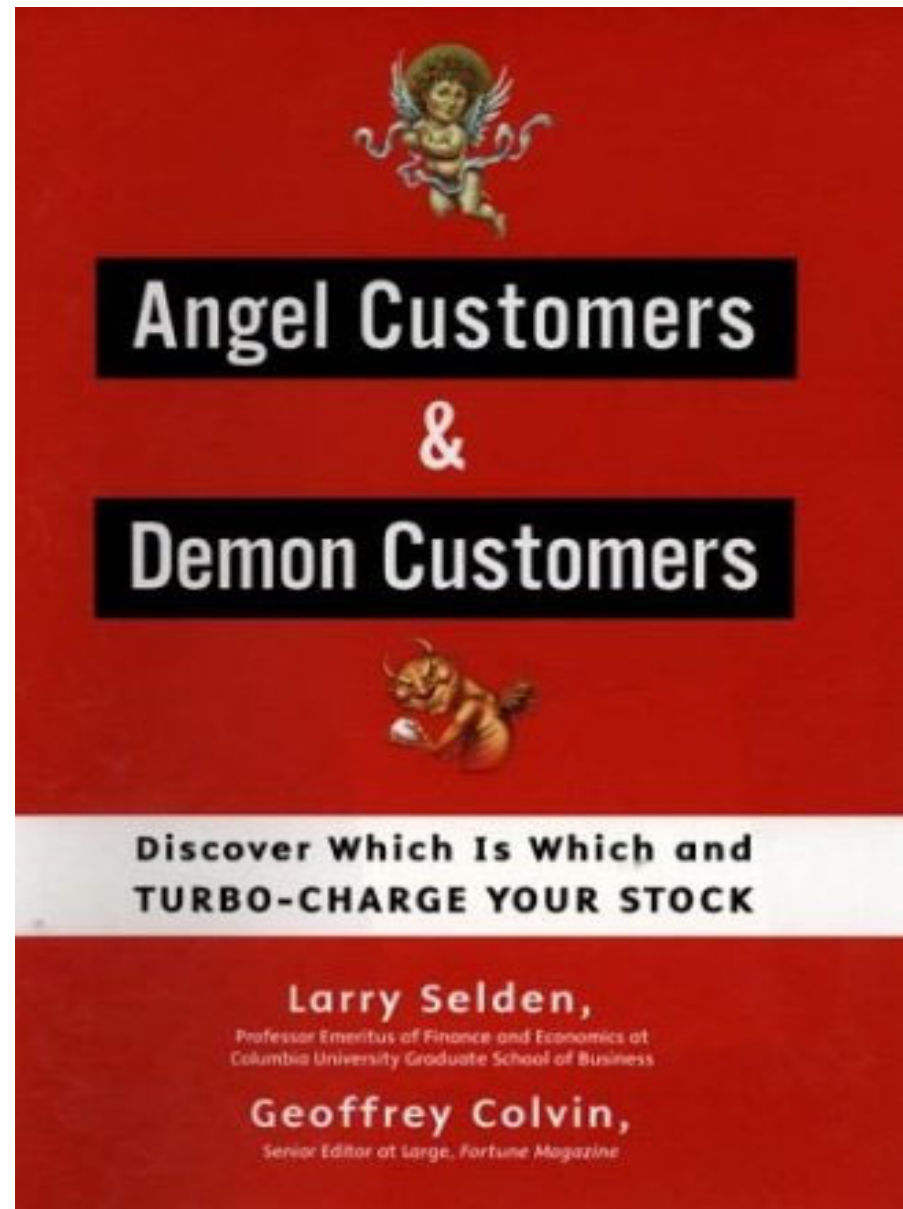
Every company has a high and low maintenance customers.

Examples of high maintenance customers: always changing delivery schedules, demanding special not standard products, returning goods, calling help desk.

Low maintenance customers do none of these.

The message:

Sales volume is not equivalent to the profit from a customer.



**Profitable and unprofitable customers are distinguished
by how they place demands on work activities**

◆ Less profitable customers ◆ More profitable customers

- ◆ Small order quantities
- ◆ Special products ordered
- ◆ Heavy discounting
- ◆ Unpredictable demands
- ◆ Delivery times change
- ◆ High technical support
- ◆ Slow payment (imputed interest)

- ◆ Large order sizes
- ◆ Standard products ordered
- ◆ Little discounting
- ◆ Predictable demands
- ◆ Delivery times standard
- ◆ Low technical support
- ◆ On-time payment (imputed interest)

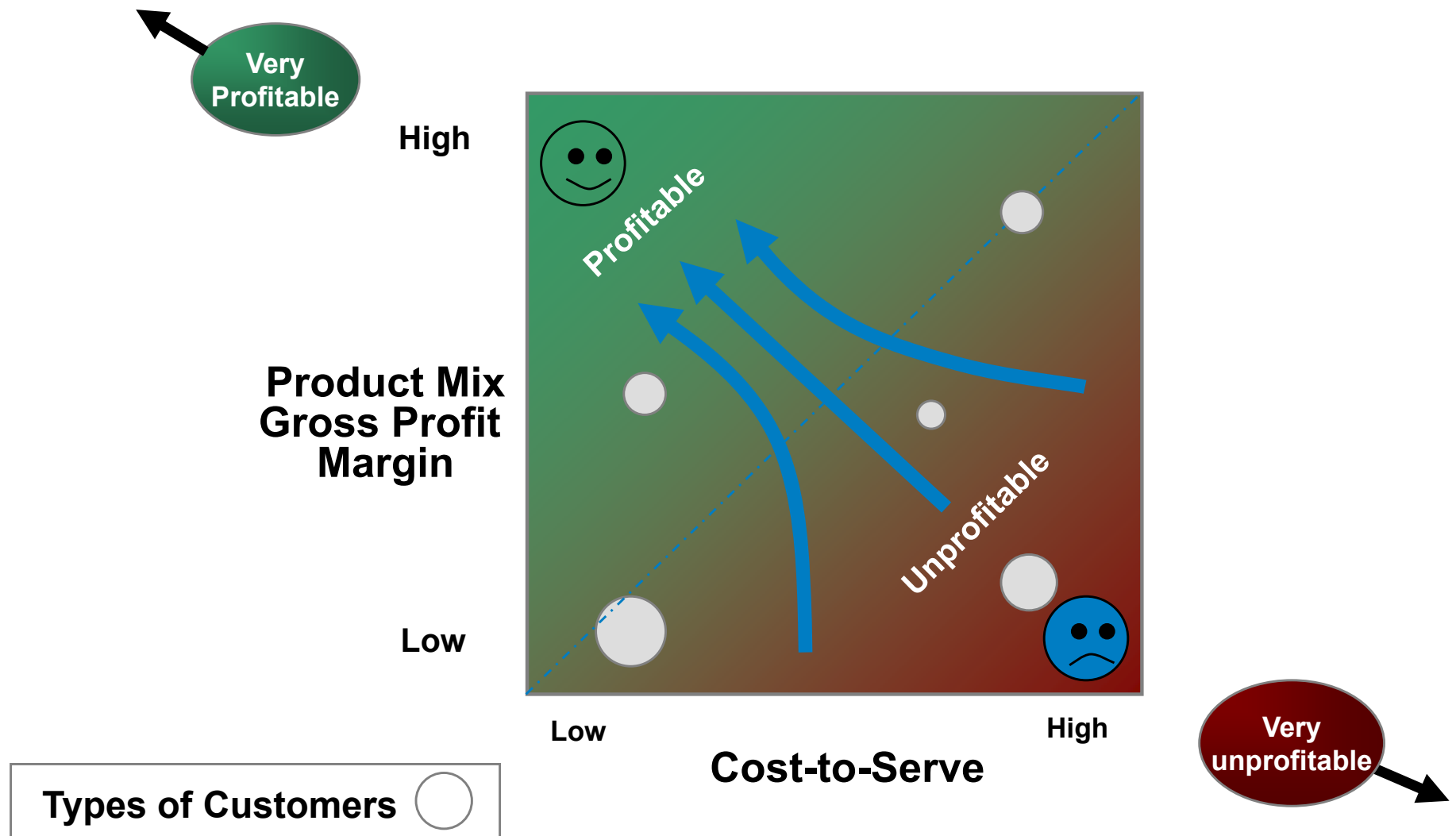
**This behavior can be measured
by activity costs and activity cost drivers**

ABC Customer Profit & Loss Statement

CUSTOMER: XYZ CORPORATION (CUSTOMER #1270)			
Sales	\$\$\$	Margin \$ (Sales - ΣCosts)	Margin % of Sales
Product-Related			
Supplier-Related costs (TCO)	\$ xxx	\$ xxx	98%
Direct Material	xxx	xxx	50%
Brand Sustaining	xxx	xxx	48%
Product Sustaining	xxx	xxx	46%
Unit, Batch*	xxx	xxx	30%
Distribution-Related			
Outbound Freight Type*	xxx	xxx	28%
Order Type*	xxx	xxx	26%
Channel Type*	xxx	xxx	24%
Customer-Related			
Customer-Sustaining	xxx	xxx	22%
Unit-Batch*	xxx	xxx	10%
Business Sustaining	xxx	<u>xxx</u>	<u>8%</u>
Operating Profit		<u>xxx</u>	<u>8%</u>

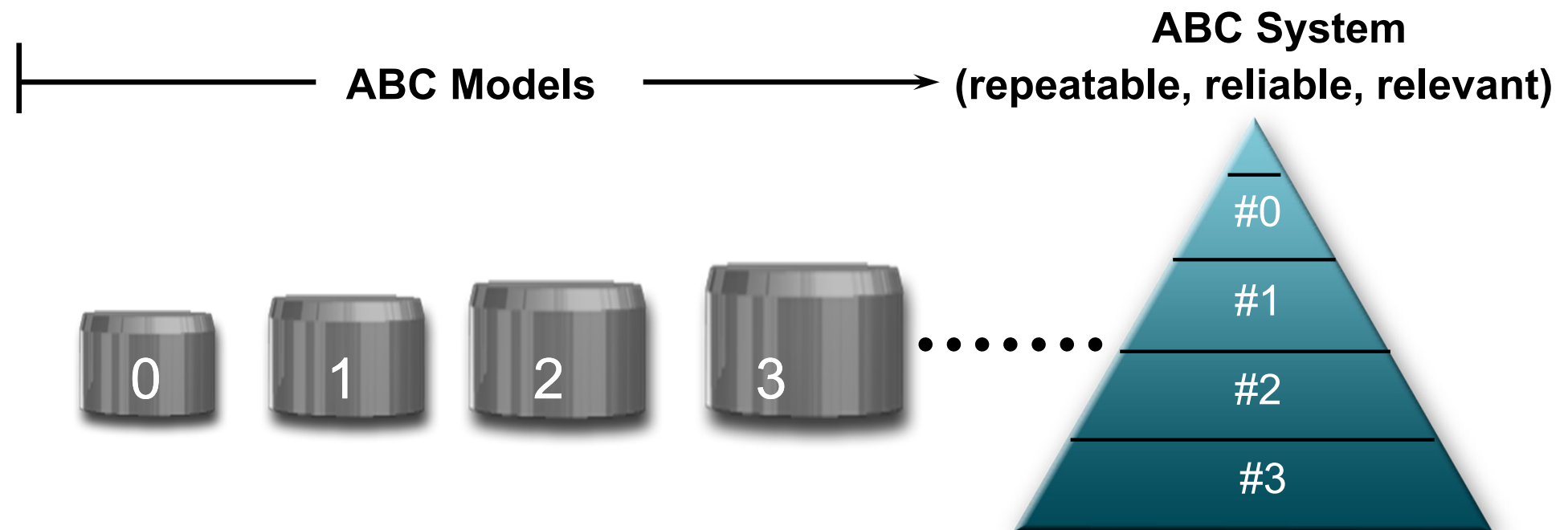
* Activity Cost Driver Assignments use measurable quantity volume of Activity Output
(Other ActivityAssignments traced based on informed (subjective) %s)

Migrating Customers to Higher Profitability



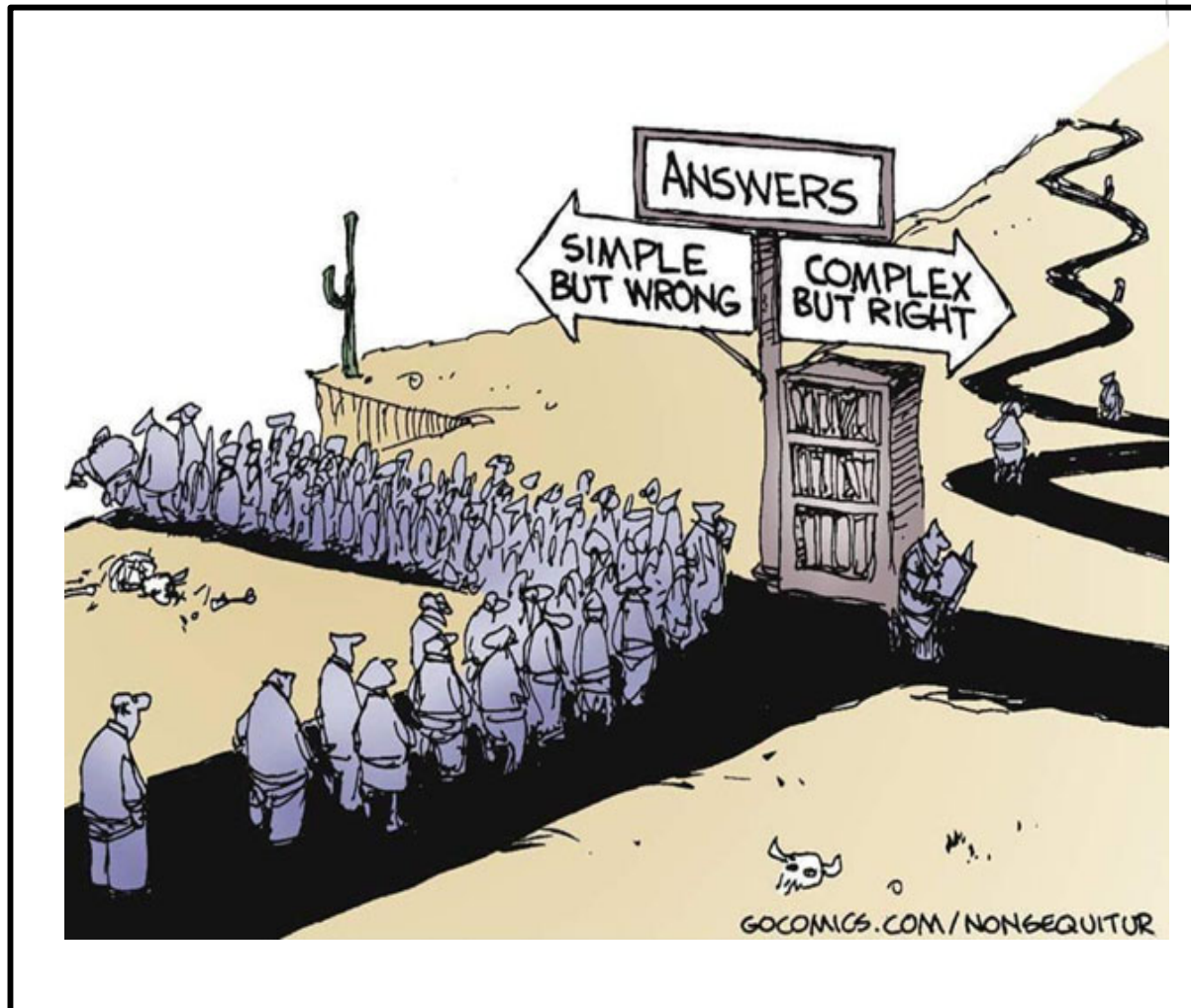
Rapid Prototyping with *Iterative Remodeling* (crawl, walk, run, fly)

Each iteration enhances the use of the ABC system.



Make your mistakes early and often, not later when the system is too hard to change.

Most CFOs take the left-side path!



What has Caused Interest in EPM?

6) Contentious Budgeting – The budget is typically a fiscal exercise by the accountants that is:

(1) disconnected from the executive team's strategy, and

(2) not based on future driver volumes.

A Quiz. “Our budgeting exercise ...”

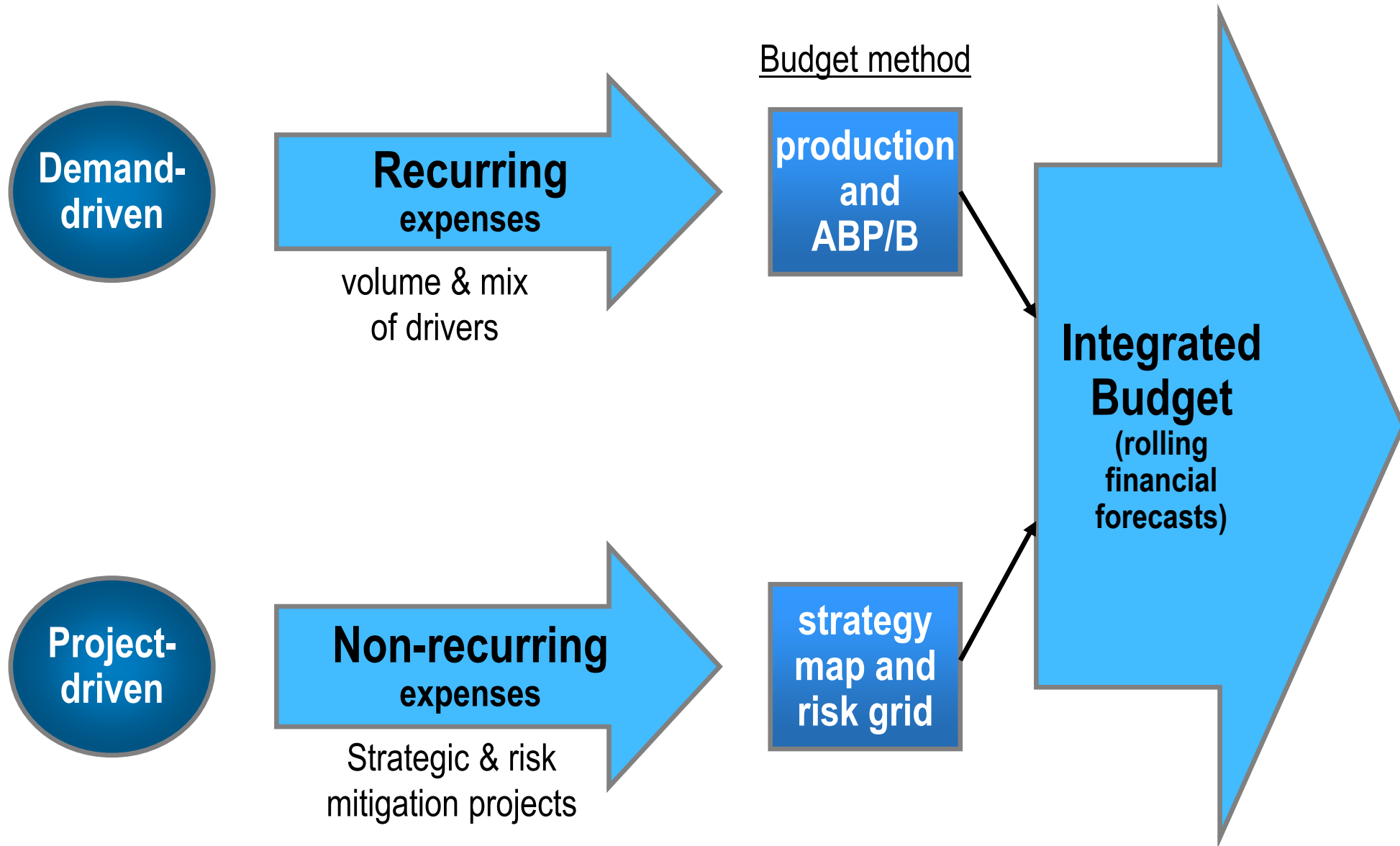
- is invasive and time-consuming ... with few benefits.
- takes 6 months from start-to-end.
- requires two or more executive “tweaks” at the end.
- is obsolete in two months due to events and re-organizations.
- starves the departments with truly valid needs.
- caves in to the “loudest voice” and “political muscle.”
- rewards veteran sand-baggers who are experts at padding.
- incorporates last year’s inefficiencies into this year’s budget.
- Is over-stated from the prior year’s “Use-it-or-lose-it” spending.

Spreadsheet Budgeting – It is Incremental !!

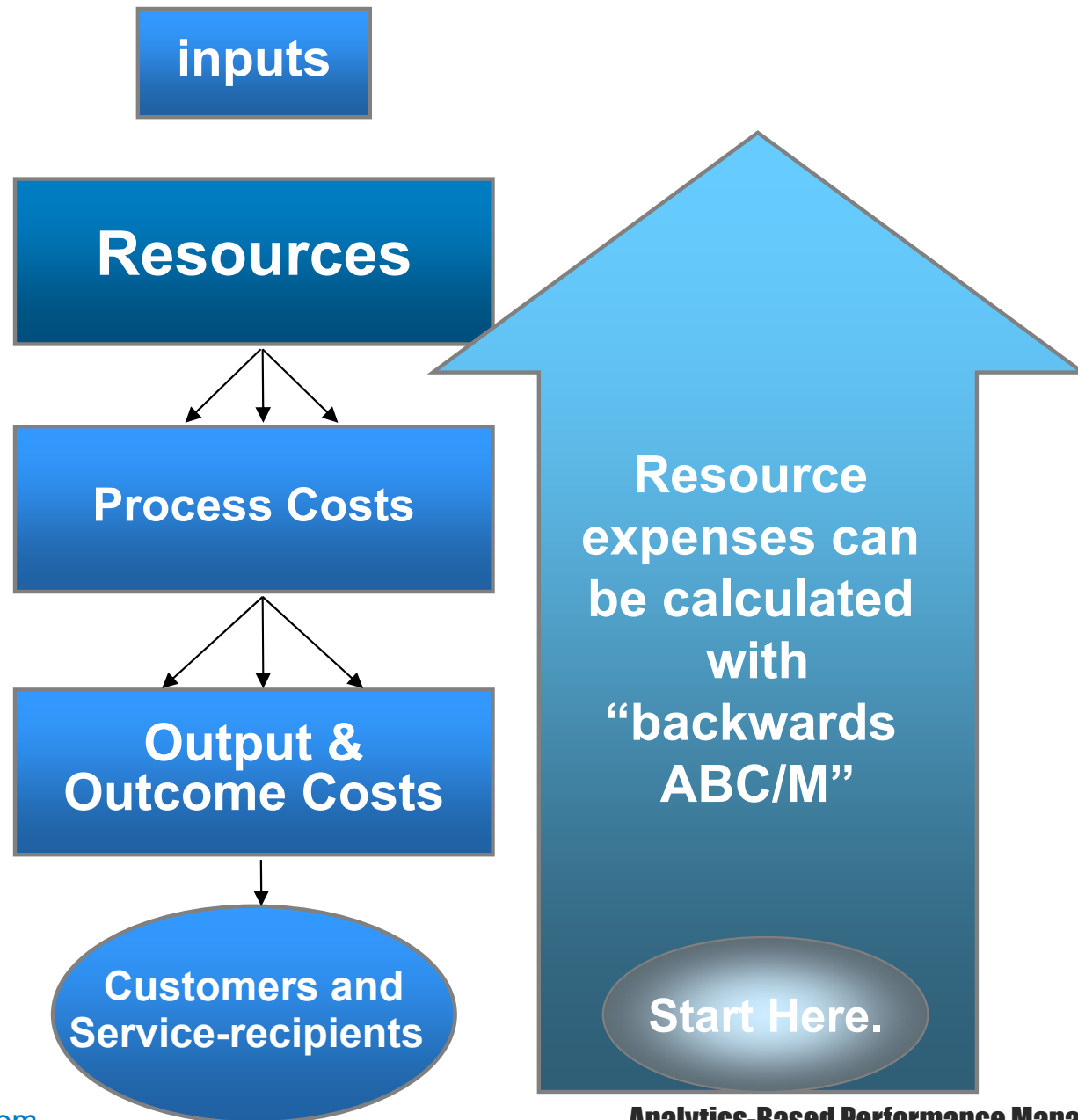
	a	b	c
1		Current Year	Budget Year
2	Wages	\$ 400,000.00	Formula = Column B * 1.05
3	Supplies	\$ 50,000.00	
4	Rent	\$ 20,000.00	Copy down
5	Computer	\$ 40,000.00	
6	Travel	\$ 30,000.00	
7	Phone	\$ 20,000.00	
8	Total	\$ 560,000.00	

Sheet 1

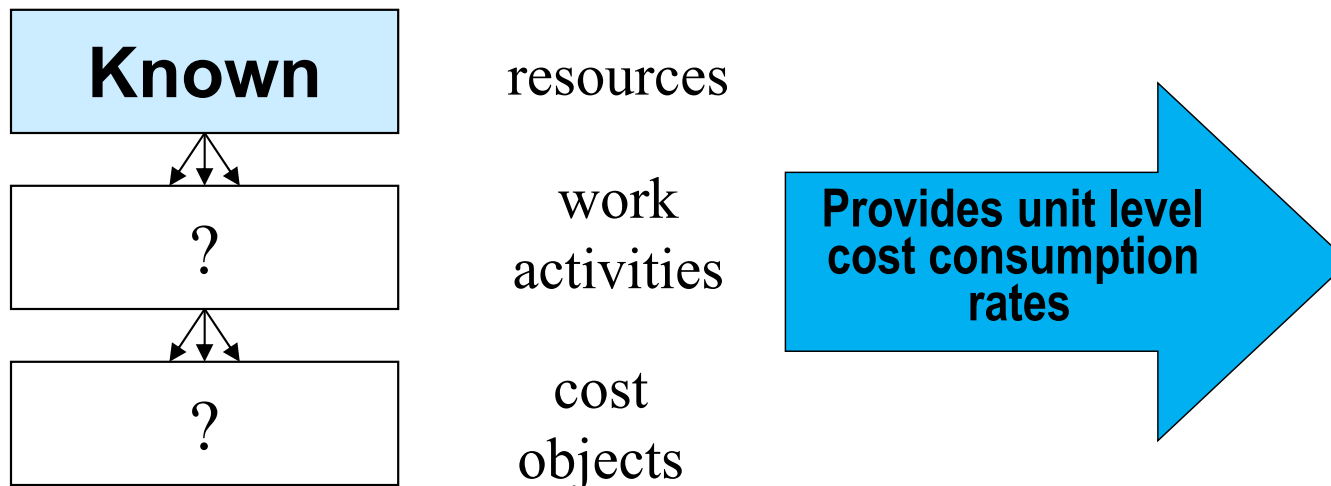
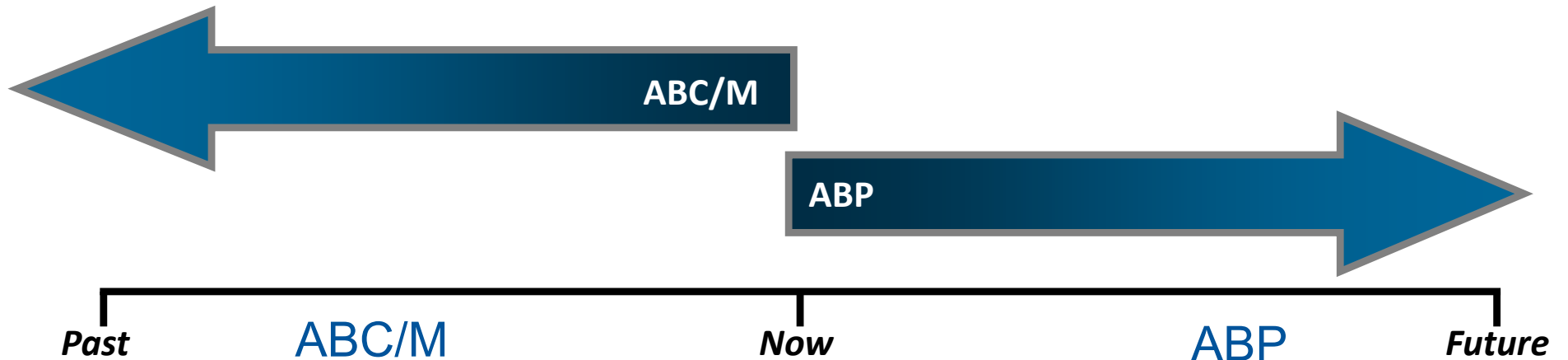
Match the Budget Method to its Category



Operational Resource Capacity Planning

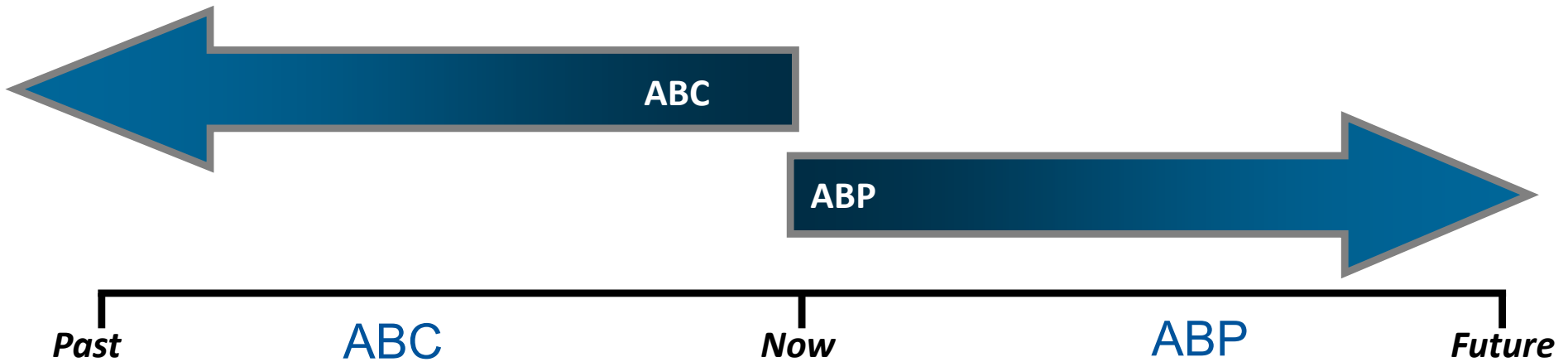


Predictive Accounting



Predictive Accounting ...

... calculate the historical cost network backwards



Industrial Engineering 101

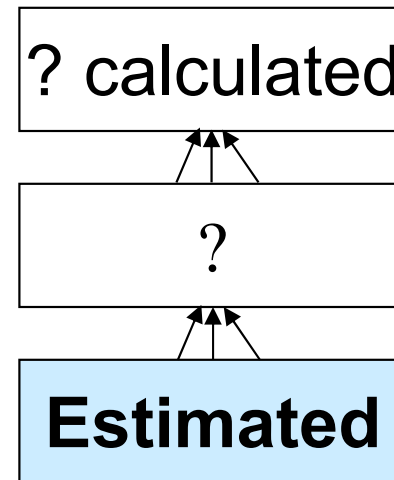
*(demand volume and mix) X
(unit level cost consumption rate)
= capacity required*

(e.g., number and type of employees,
purchases with suppliers)

resources

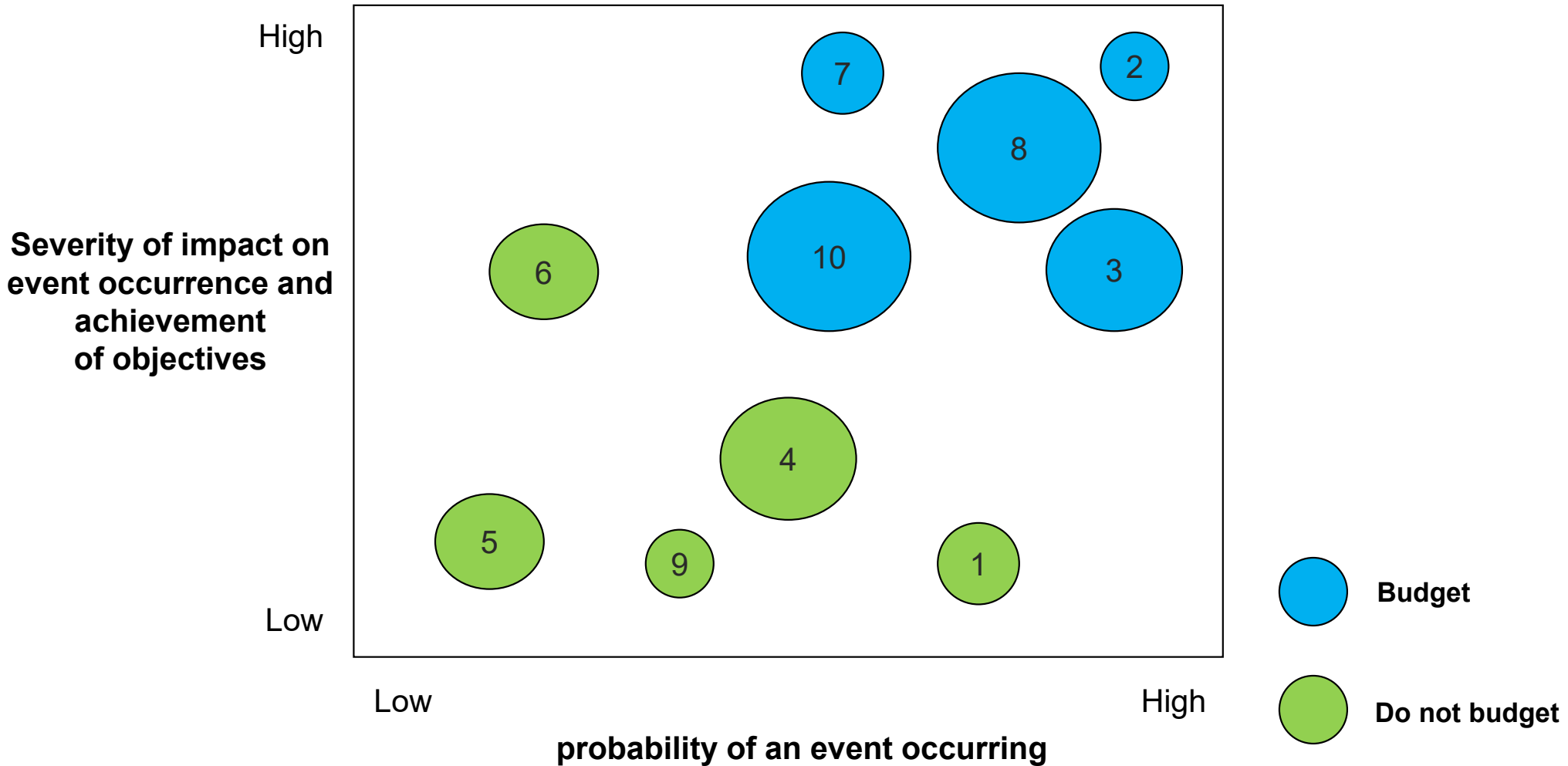
work
activities

cost
objects

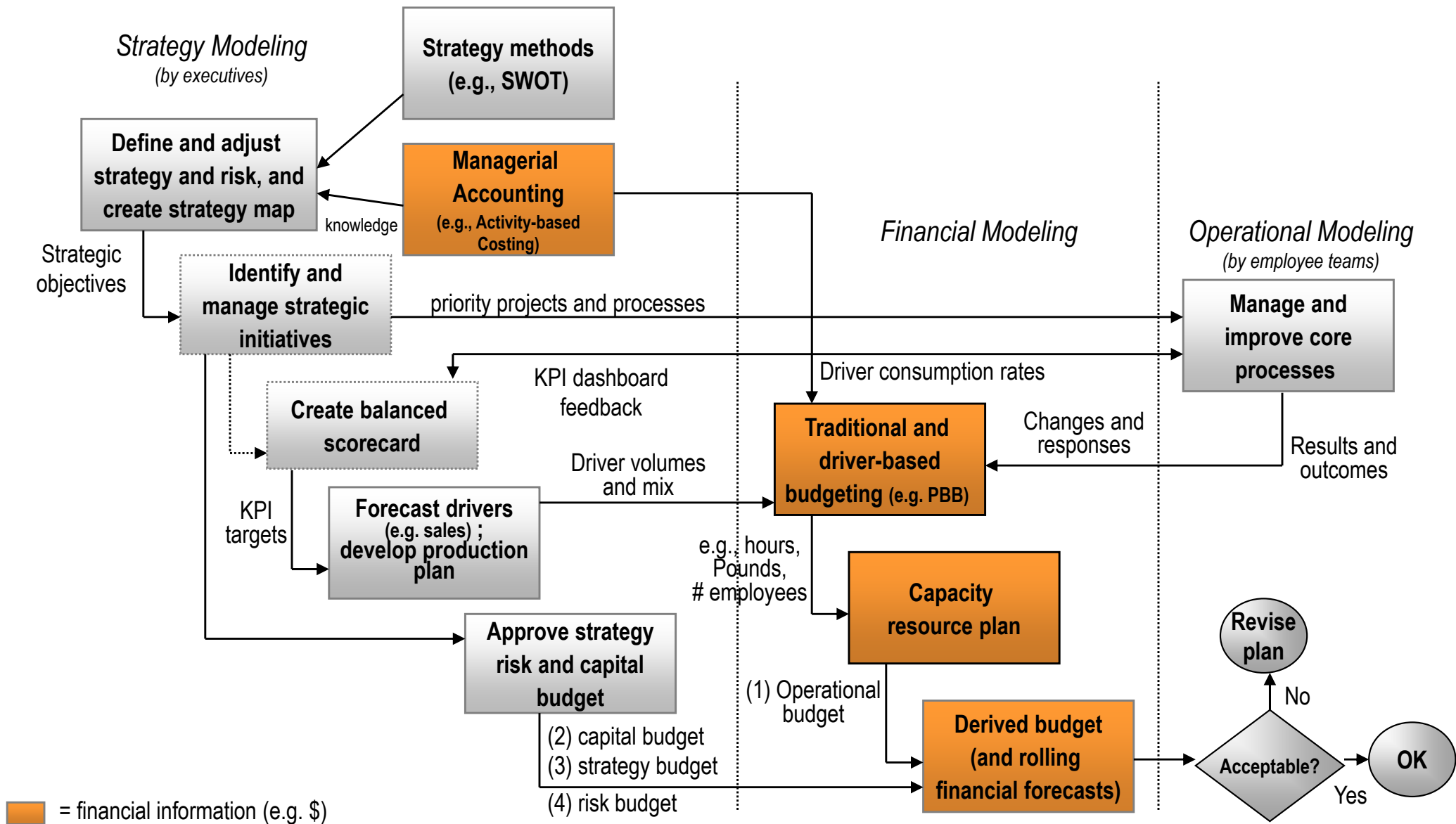


(3) Risk Assessment Grid

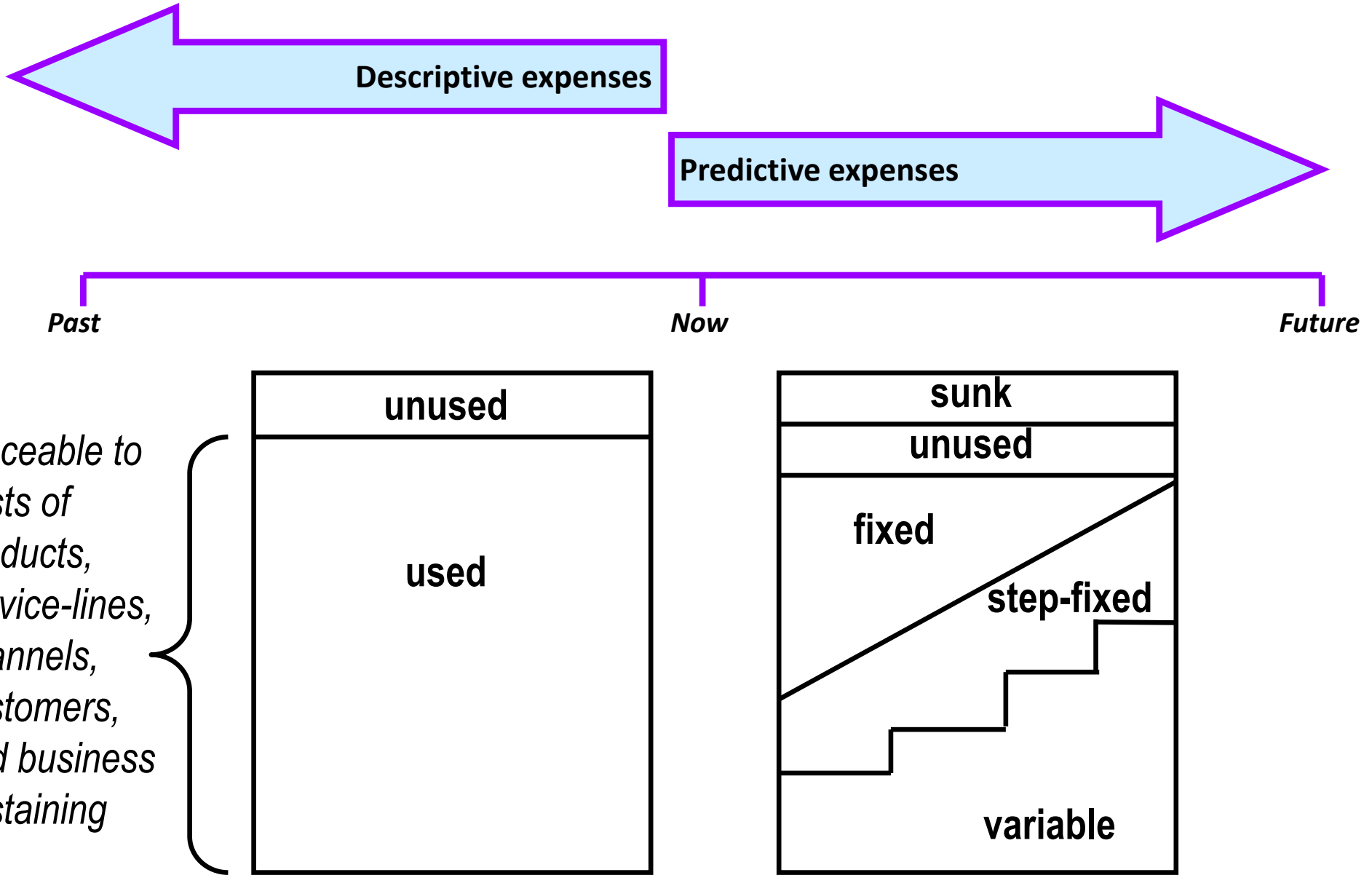
... ERM is not just contingency planning



Linking Strategy and Risk to the Budget



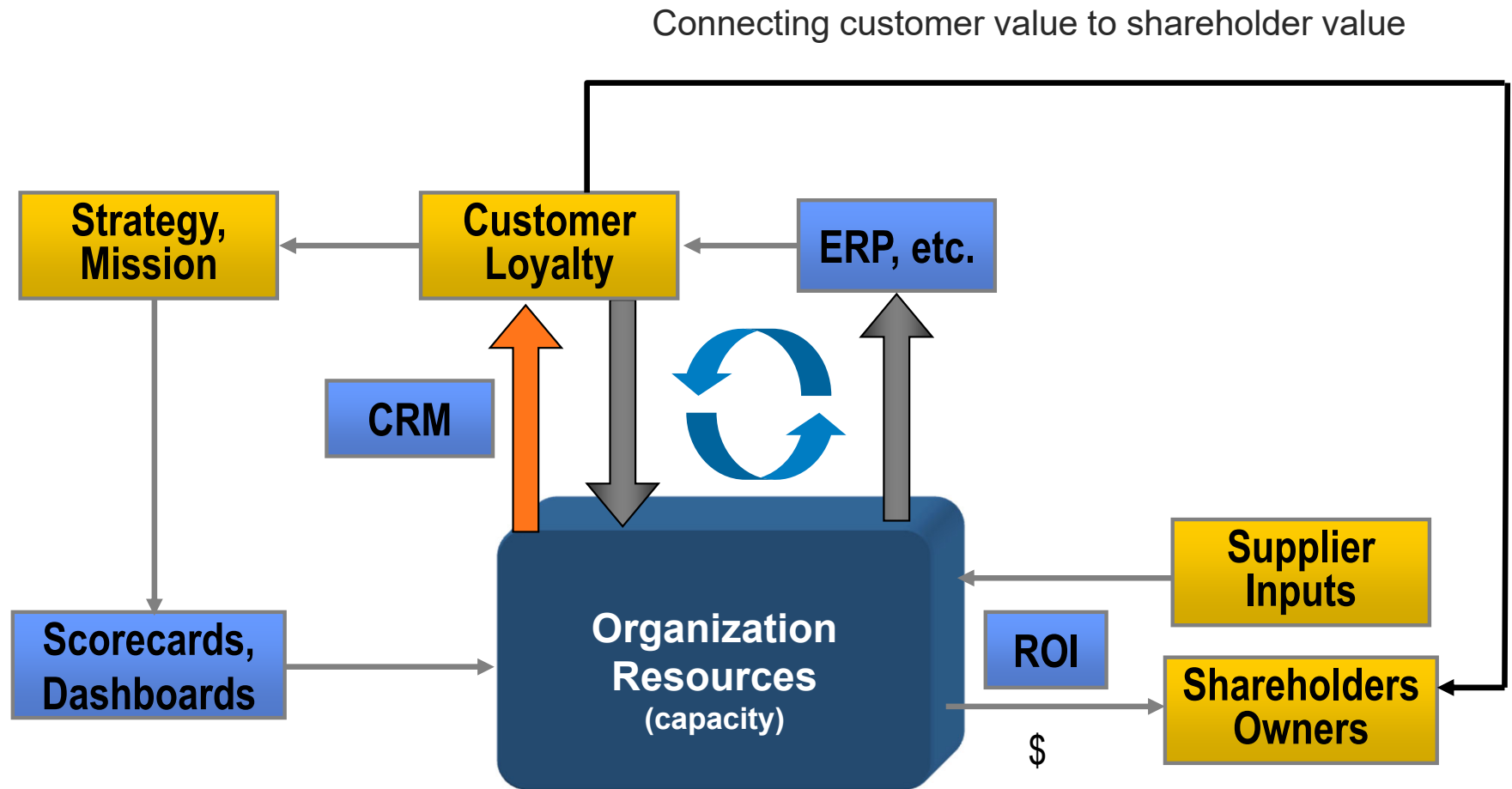
Predictive Accounting



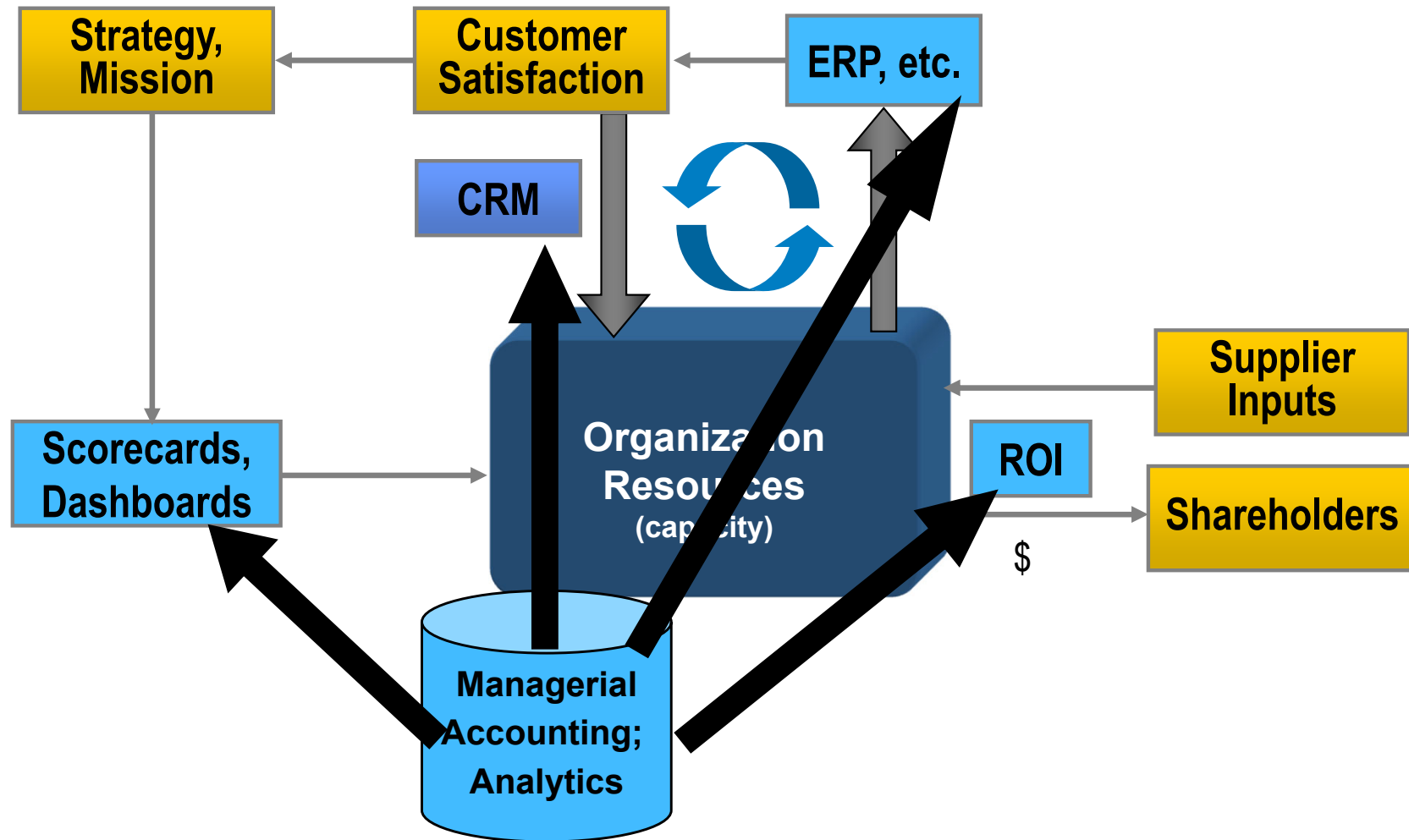
AGENDA

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- **What is Business Analytics?**
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How Does It All Fit Together?

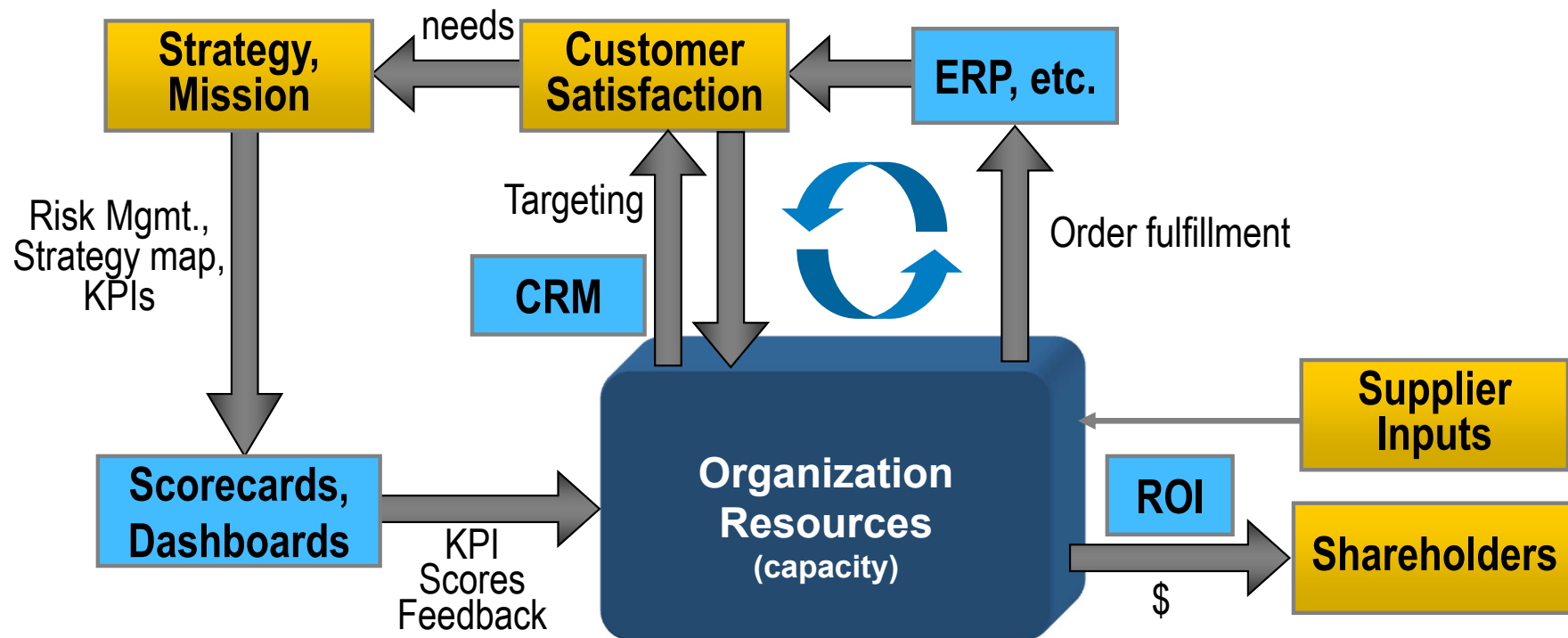


In Summary ... first, we energize *with good managerial accounting.*



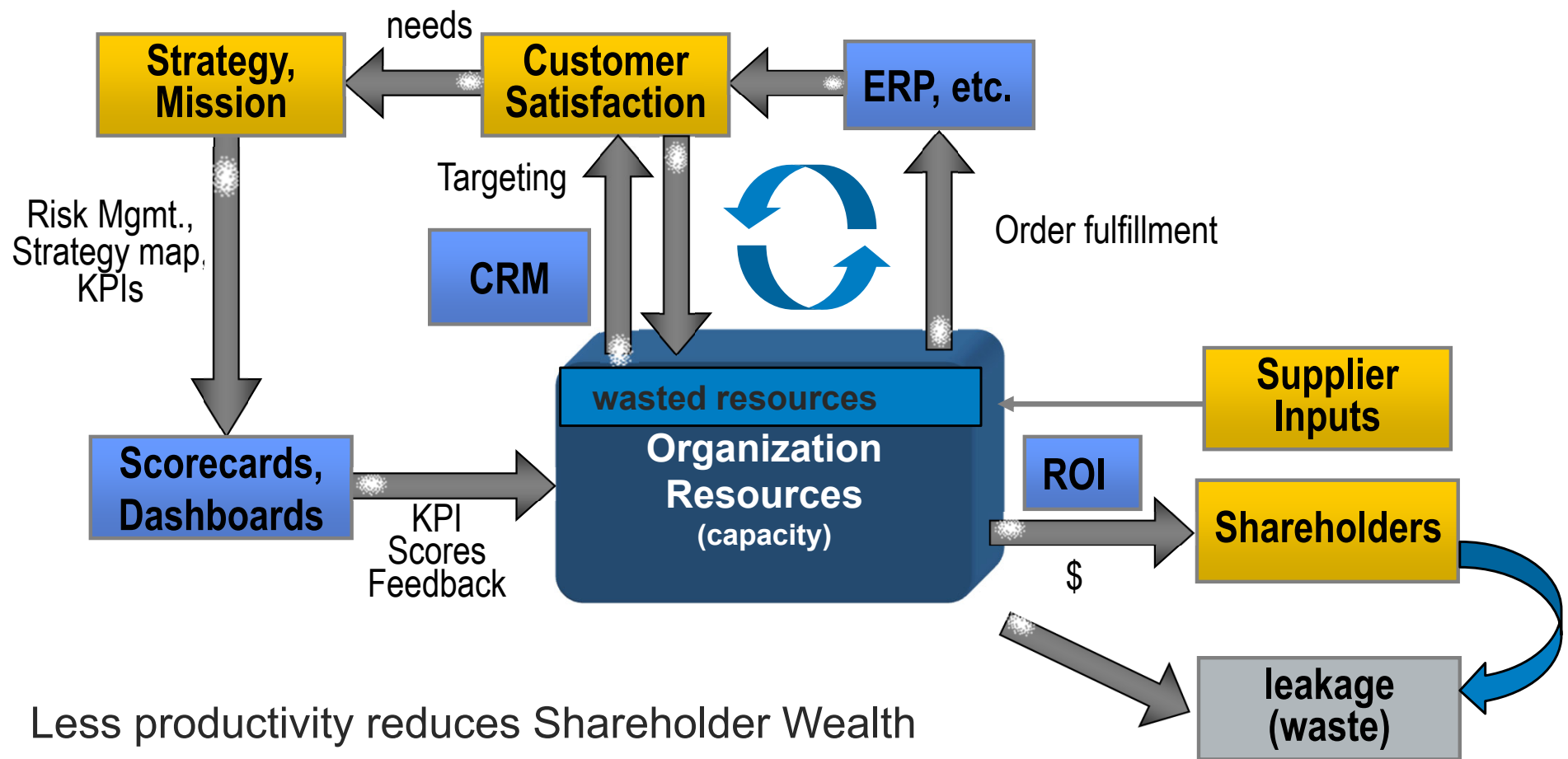
EPM is Circulatory and Simultaneous

Shareholder Wealth Creation is not a goal. It is a result!



EPM is Circulatory and Simultaneous

Shareholder Wealth Creation is not a goal. It is a result!



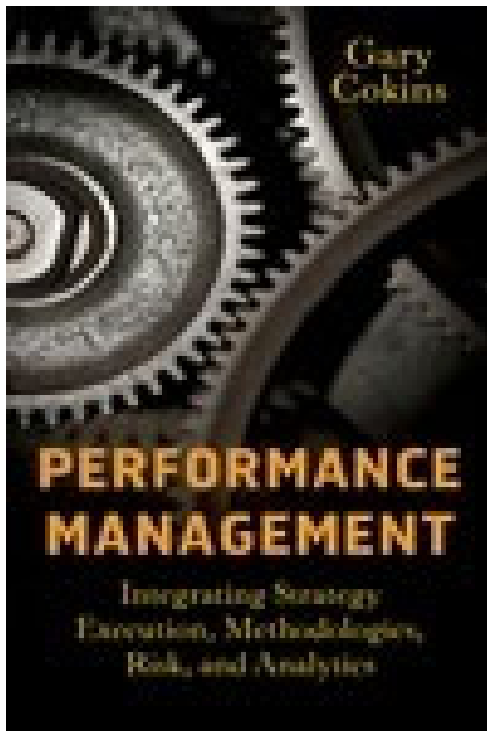
The Buy-in to Performance Management

Why has the adoption rate for analytics-based EPM's methodologies been so slow?

Why is the adoption rate so slow? What are the barrier categories?

- (1) Technical barriers include IT related issues.**
- (2) Perception barriers are excess complexity and affordability.**
- (3) Organizational behavior barriers involve resistance to change, culture, and leadership.**

The Complete Vision of Performance Management



versus
this



Make the RPM of the CPM and BA gears spin ...
... better, faster, cheaper ... safer and smarter

Getting Started Actions and Resources

Action steps

- **Get educated. Get buy-in.**
- **Rapid prototyping. Start small; think big.**
- **Improve incentives. (Motivational theory)**

Resources:

<http://fpa-trends.com/article/exceptional-epmcpm-systems-are-exception>

<https://opexsociety.org/body-of-knowledge/enterprise-corporate-performance-management/>

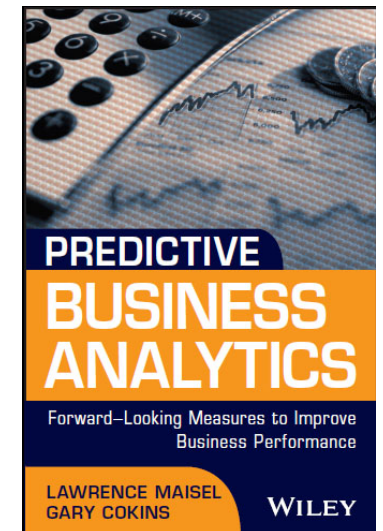
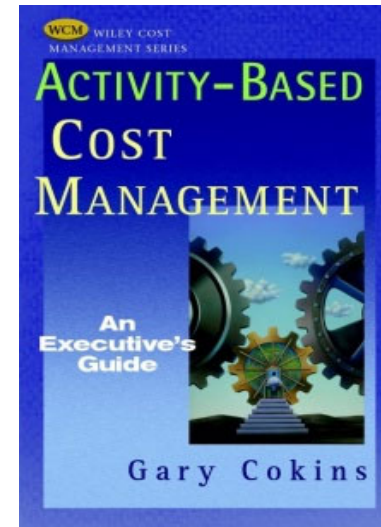
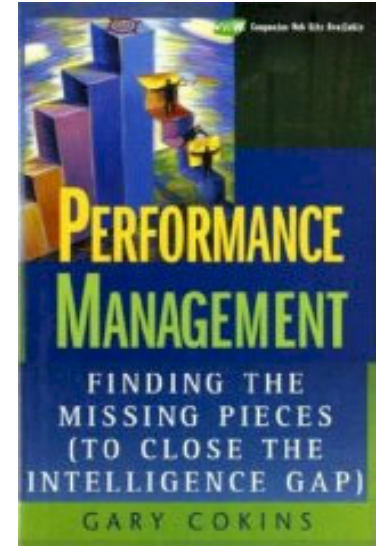
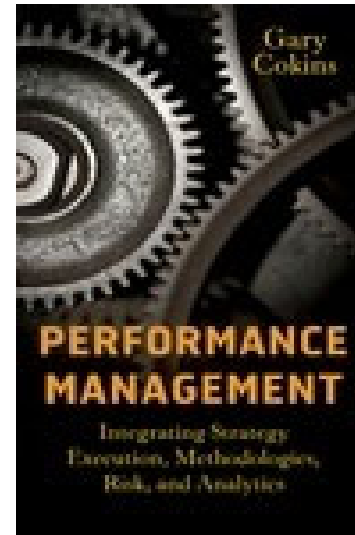
This link is to chapter 1 of my co-authored book *Predictive Business Analytics*. It is free. Below it is a link to the book.

http://media.wiley.com/product_data/excerpt/65/11181755/1118175565-13.pdf

http://www.amazon.com/Predictive-Business-Analytics-Capabilities-Performance/dp/1118175565/ref=sr_1_1?s=books&ie=UTF8&qid=1371659458&sr=1-1&keywords=predictive+business+analytics

From Theory to Practice

Your success depends on how well and how fast the right information and intelligence gets to the right people.



Thank You

Gary Cokins, CPIM

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