

Week 6

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Week 6 Study Guide and Deliverables

due August 15 at 11:59 PM ET

Readings:

- Modules 11 and 12 online content
- Reinventing performance management, Buckingham M., Goodall A., HBR April 2015, pp. 40-50 (Module 11)
- Developing the next generation of industry leaders, Ready D., Peebles E., MIT Sloan Management Review, Fall 2015, pp. 42-50 (Module 12)

e-Reserve:

- Kaplan, Ch. 2: *Develop the Strategy* (Module 11)

Discussions:

- None this week

Exercises:

- **Individual Exercise 6-1:** Working with the BRC, Demo Exercise PART 4
In preparation for Assignment 3, (i) review the presentation Working with BRC, Demo Exercise PART 4, (ii) go to the V-Labs and open your excel file with the last cycle of the business simulation, (iii) repeat the tasks discussed in the presentation Working with BRC, Demo Exercise PART 4, (iv) work on the completion of Assignment 3, Tasks 3.2 through 3.6.
- **Individual Exercise 6-2 (optional):** If you are already working extensively with excel spreadsheets, you may find this OPTIONAL tutorial useful for your professional development. You can also create a Balanced Scorecard and explain it in Tasks 3.5 and 3.6 of your **Assignment 3**.
- **Tutorial 12:** Balanced Scorecards in Excel (**optional**)

Assignments:

- **Assignment 3:** Application of analytical tools, analysis of the results, and recommendations to invest or not in a BrewPub
- **Final Presentation Peer Evaluation due:** *August 22, 11:59 PM ET.*

- **Assignment 3:** Application of analytical tools, analysis of the results, and recommendations to invest or not in a BrewPub

Assessments: • None this week

Live • **Preparation W6** – 8/9, Wednesday (Day 1) at 8-9 PM ET (will be recorded)

Classrooms:

Module 11 – Performance Management, Data Visualization, and Decision Making

Performance Management, Data Visualization, and Decision Making

Learning Objectives

After you complete this lecture, you will be familiar with the following concepts:

- Performance Management and Decision Making; An Introduction
- Performance Management Process: A Decision-Making Focus
- Performance Management and Decision Support Tools
- Corporate Management, Performance Management, and Decision Making Explained with the Help of the Business Running Case & the Business Simulation for AD715

Performance Management and Decision Making: An Introduction

Performance management is of key importance for the prosperity of the whole society¹. For the purpose of this course we will discuss the business performance management which, in general terms, is focusing on the execution of the business strategy of the company and on the translation of its plans into results. The architects of this execution are the decision-makers of the company: they need to be able to identify quickly the issues that influence the performance of the business and secure the resources to deal with them effectively and efficiently.

In this segment of Lecture 11 we will first define the main categories 'business performance management', 'performance management process', and 'performance measurement', then we will discuss selected tools for

performance measurement in business, and finally we will explain the difference between performance indicators, results indicators, and critical success factors.

Business Corporate) Performance Management defined²:

'A business management approach which looks at the business as a whole instead of on a division level.

Business performance management (BPM) entails reviewing the overall business performance and determining how the business can better reach its goals. This requires the alignment of strategic and operational objectives and the business' set of activities in order to manage performance. Because BPM seeks to aggregate available information, managers are more informed about the company's position and are able to make better decisions'.

Performance Management Process

An organization usually follows a four-part performance management process: (1) planning and setting goals; (2) collecting data and analyzing results; (3) using data for decision-making; (4) communication results – see the diagram, below.

USAID Performance Management Process³



Performance Measurement defined⁴:

'Performance measurement is the ongoing monitoring and reporting of program accomplishments, particularly progress towards pre-established goals. It is typically conducted by program or agency management.

Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), and/or the results of those products and services (outcomes).

A "program" may be any activity, project, function, or policy that has an identifiable purpose or set of objectives.'

¹ U.S. Government defined recently the requirements for improving the performance, management, and accountability of Federal Government programs – see: (i) Government Performance and Results Modernization Act of 2010, URL: <http://www.govexec.com/pdfs/092810rb1.pdf> and (ii) Best Practice – Performance Management: Using Performance Measurement for Decision Making (2002 and 2007) (BUDGET), URL: <http://www.gfoa.org/downloads/budgetperfmagement.pdf>.

² Retrieved from <http://www.businessdictionary.com/definition/business-performance-management-BPM.html> on 3/1/2012.

³ Retrieved from www.usaid.gov/performance/program-performance/ on 3/1/2012.

⁴ Retrieved from <http://www.gao.gov/special.pubs/gg98026.pdf> on 3/1/2012.

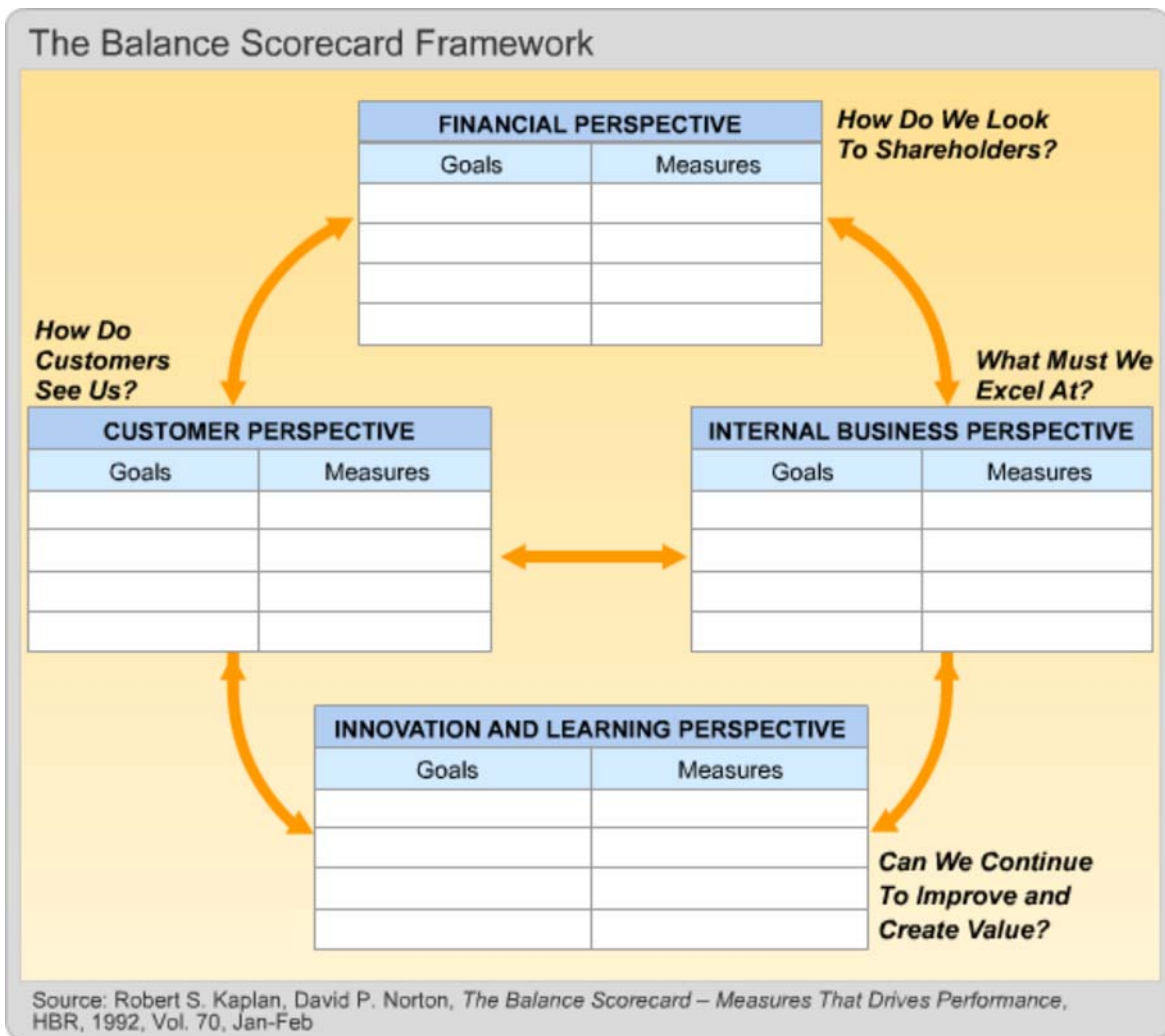
Performance Measurement Tools

You have been introduced in Lecture 4 to the Kaplan/Norton closed loop management system for strategy execution. Kaplan/Norton studies on business performance management started earlier. Their fundamental article on *The Balance Scorecard – Measures That Drives Performance* (1992) was followed by several books on balance scorecards, strategy maps, and time-driven activity based costing⁵. For the purpose of this course we will review only three of their performance management tools: balance scorecards, strategy maps, and closed loop management system.

Balance Scorecard

The Balanced Scorecard (BSC) was originated by Kaplan/Norton as a performance measurement framework where strategic non-financial performance measures were linked to traditional financial metrics with the goal to help managers and executives to balance the view of the organizational performance. The four measures (called by Kaplan and Norton 'prospective') are defined on the diagram, below, as:

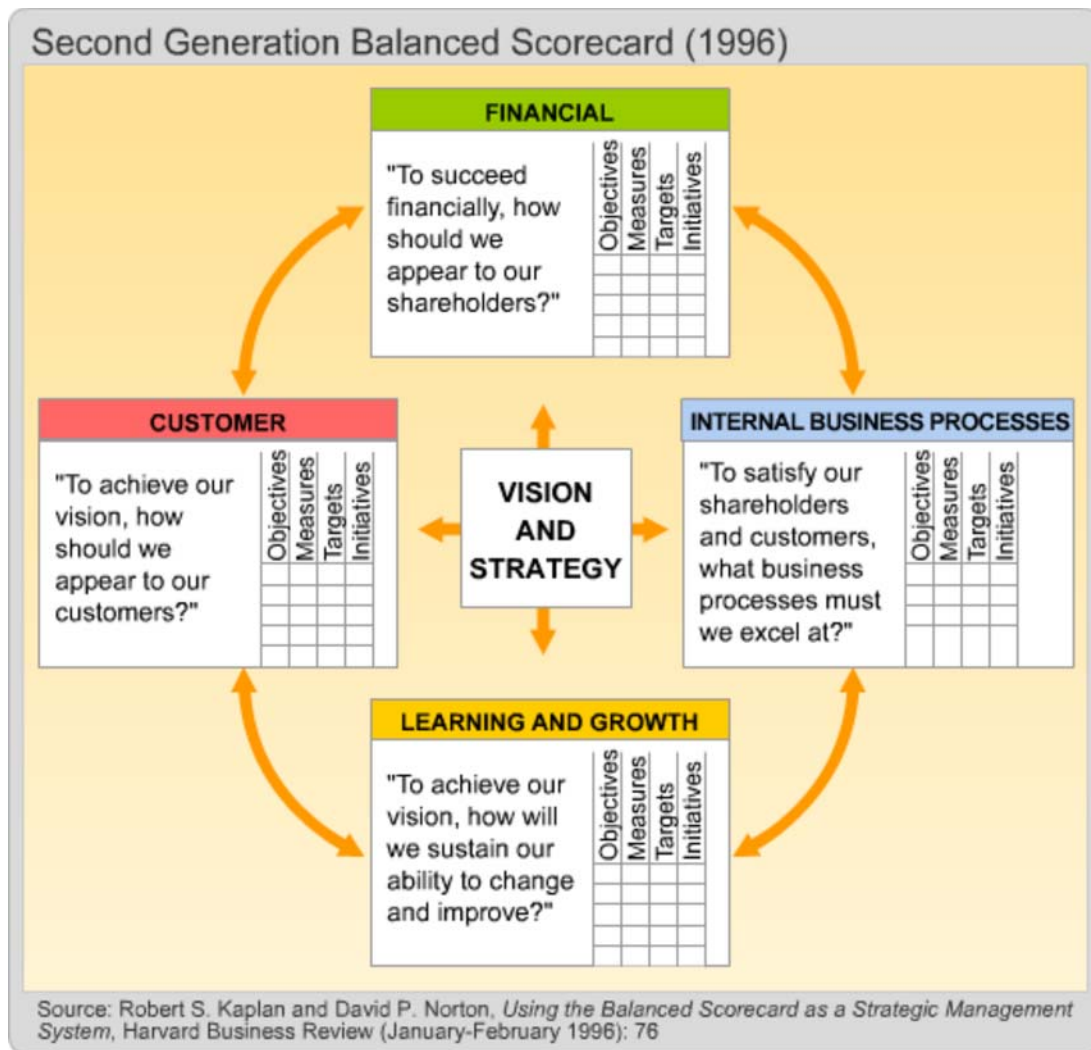
- Financial (How do we look to shareholders?)
- Customer (How the customers see us?)
- Internal Business Process (What must we excel at?)
- Learning and Growth (How can we continue to improve and create value?)

First Generation Balanced Scorecard⁶ (1992)

In 1996 Kaplan and Norton introduced their second generation BSC (see the diagram below) and in 2001 explained how to apply BSCs and create a strategy-focused organization along five key principles:

1. translate strategy to operational terms,
2. align organization to strategy,
3. make strategy everyone's day job,
4. make strategy continual process
5. mobilize change through leadership⁷

Second Generation Balanced Scorecard⁸ (1996)



Strategy Maps

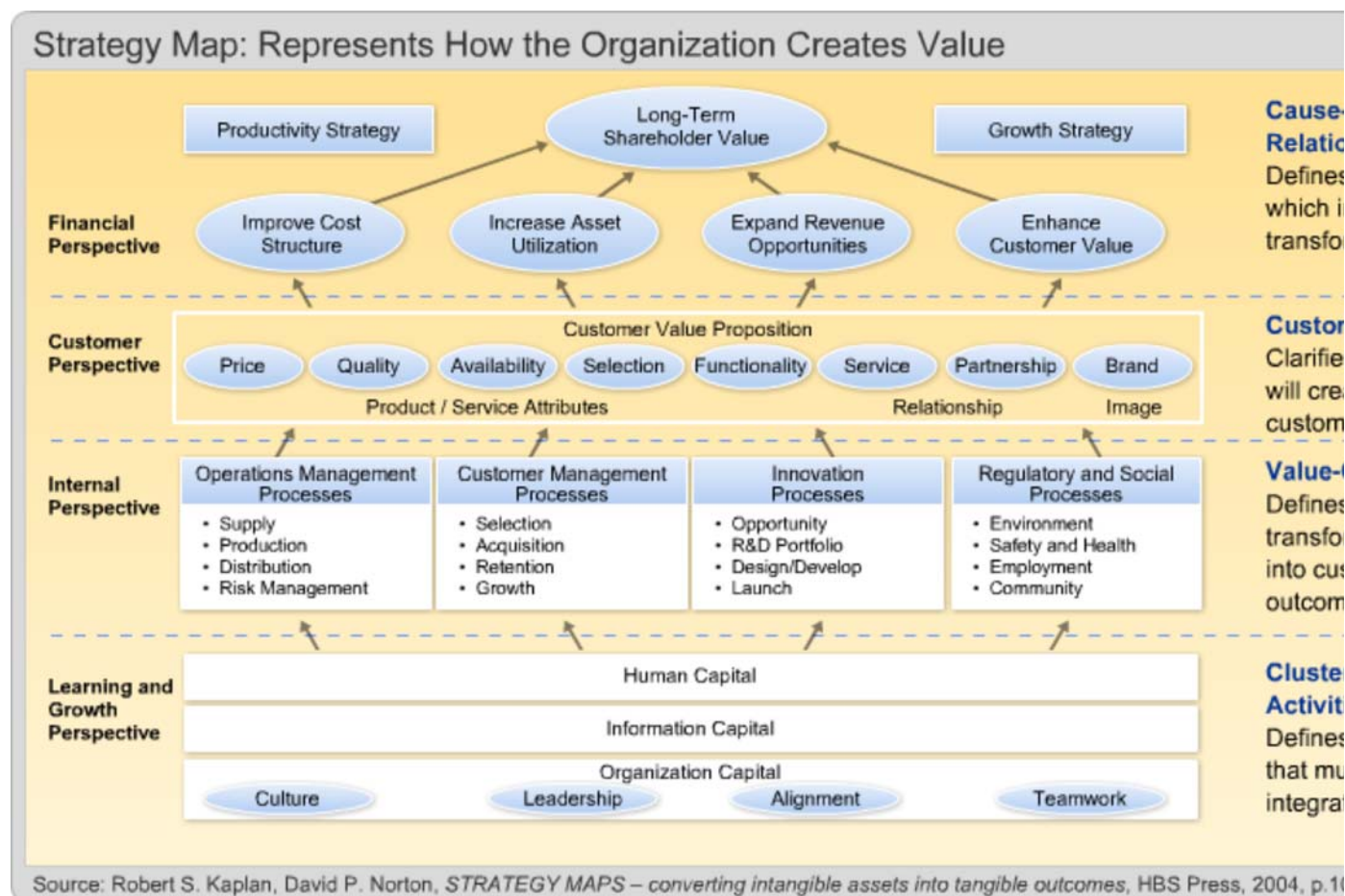
Strategy map is a framework that describes how an organization creates value by connecting strategic objectives in explicit cause-and-effect relationship with each other in the four BSC objectives (see the diagram below), as follows:

- *the financial perspective* (cause-and-effect relations) defines the chain of logic by which intangible assets will transformed to tangible value;
- *the customer perspective* (customer value proposition) clarifies the conditions that will create value for the customer;
- *the internal perspective* (value-creating processes) defines the processes that will transform intangible assets into customer and financial outcomes;
- *the learning and growth perspective* (clustering of assets and activities) defines the intangible assets that must be aligned and integrated to create the value.

Strategy maps are not only describing the strategy of an organization but are also helping organizations to

communicate their strategies among executives and to their employees. In this way alignment can be created around the strategy which makes its successful implementation easier.

Strategy Map – Represents How the Organization Creates Value (2001⁹ and 2004¹⁰)



Close Loop Management System

In the last twenty years BSCs was transformed from a measurement devise to a strategic management system that

- enables organizations to clarify their mission, values, vision (MVV) and strategy and translate them into action and
- provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results.

In The Execution Premium¹¹, Kaplan and Norton:

- bring together all their work on BSCs and Strategy Maps to create a comprehensive close loop management system that companies can use to sustain world-class strategy execution and

- explain the purpose and the role of the office of strategy management – coordinating activities across functions and business units and keeping everyone synchronized over time.

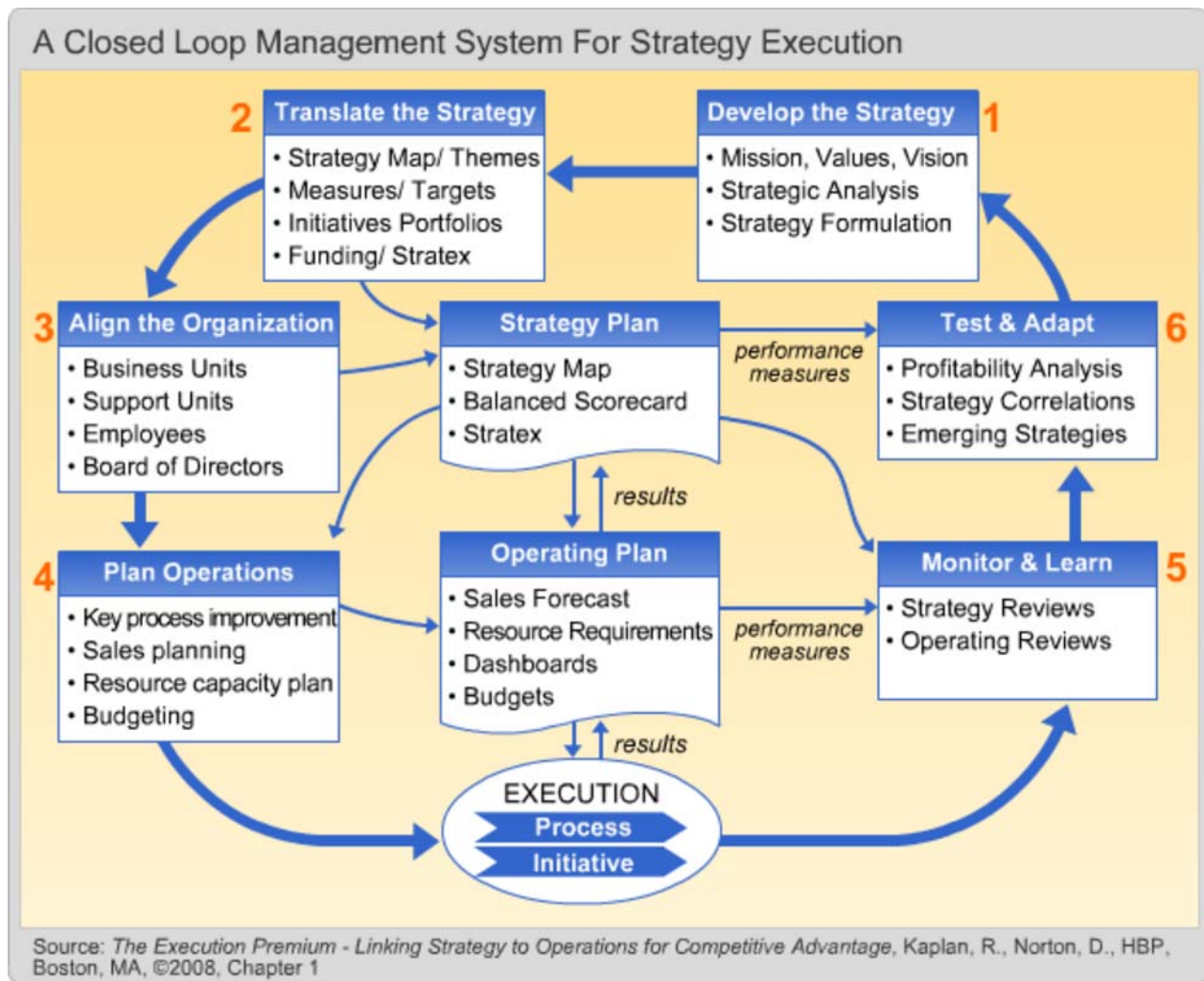
In addition, Kaplan and Norton founded The Palladium Group¹², a global consulting company, which is also offering a full spectrum of performance management services, such as:

- Integrated operational and financial planning – helping clients to define the activities, resources, and business processes needed to create and meet financial objectives as well as employee, capital, and project plans.
- Forecasting, resource allocation, and investment management – designing and implementing a rolling framework transforms planning from an annual activity to a continual, dynamic process that adapts as business conditions evolve.
- Financial close and consolidations – improving companies' process efficiencies and effectiveness, shorten closing timeframes, expand decision analytics, comply with statutory requirements, and increase the visibility into the business.
- Reporting, operational dashboards, and analytics – Palladium creates frameworks and processes to help clients identify potential challenges, leverage successes, and streamline financial reporting.
- Performance management systems implementation – Palladium implements systems and technology that help scale and sustain results¹³.

Two other important initiatives of The Palladium Groups are:

- The *Hall of Fame*, which honors those organizations that have achieved an *execution premium* "extraordinary performance results" through the use of the Kaplan-Norton Balanced Scorecard. There are over 160 Hall of Fame members¹⁴ (from different countries around the globe and every industry).
- The *Palladium's Execution Premium Community* (XPC¹⁵), which is a unique, high-impact, global online community of strategy and performance management practitioners that provides members with an exclusive, secure location to exchange knowledge and share experiences with peers facing similar strategy and operational issues.

The six-step-process of the close loop management system (see the diagram, below) was introduced to you in Lecture 4 and was demonstrated with the help of the business simulation 'Strategies and Decision Support in Organizations' in Lectures 7 to 10.

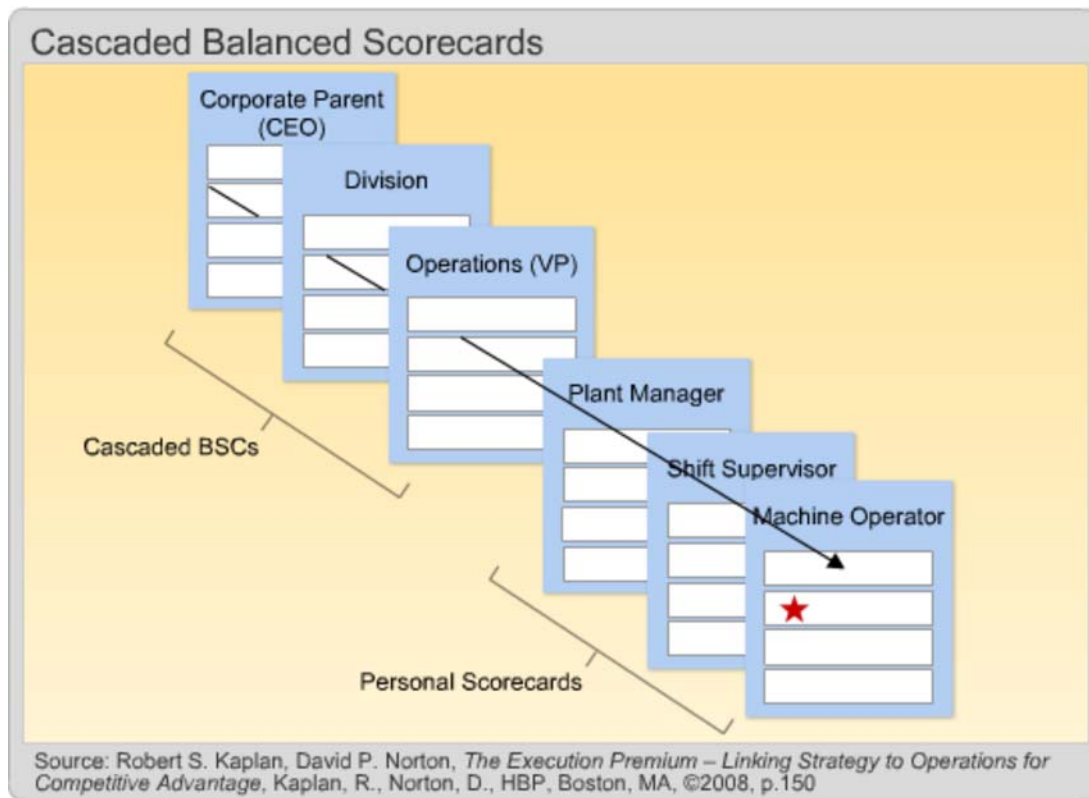


The BSCs are an integral part of the close loop management system. With their help organizations are

- communicating their strategies among executives and to their employees and
- annually are validating the personal strategic objectives of their employees (with the help of a personal BSC each employee is setting targets to improve a cost or revenue figure, boost performance with external or internal customers, improve a process or two that will deliver customer and financial value, and enhance a personal competency to drive process improvement¹⁶).

The diagram below demonstrates this approach, which is also called cascaded BSCs.

Cascaded Balanced Scorecards¹⁷



⁵ Kaplan and Norton, a short list of publications and useful links:

- Robert S. Kaplan, David P. Norton, *The Execution Premium – Linking Strategy to Operations for Competitive Advantage*, Kaplan, R., Norton, D., HBP, Boston, MA, ©2008
- Robert S. Kaplan, Steven R. Anderson, *Time -Driven Activity-based Costing*, HBS Press, 2007
- Robert S. Kaplan, David P. Norton, *Strategy Maps – converting intangible assets into tangible outcomes*, HBS Press, 2004
- Robert S. Kaplan, David P. Norton, *The Strategy-Focused Organization*, HBS Press, 2001
- Robert S. Kaplan, David P. Norton, *The Balanced Scorecard*, HBS Press, 1996
- The Palladium Group, Inc., (former BSC Collaborative, the educational division of Kaplan/Norton)
<http://www.thepalladiumgroup.com/>
- Executive Strategy Manager, On-Demand BSC Software, by Palladium Group,
<http://www.executivestrategymanager.com/>

⁶ Robert S. Kaplan, David P. Norton, *The Balance Scorecard – Measures That Drives Performance*, HBR, 1992, Vol. 70, Jan-Feb.

⁷ Robert S. Kaplan and David P. Norton, *The Strategy-Focused Organization*, Harvard Business Press, 2001

⁸ Robert S. Kaplan and David P. Norton, *The Strategy-Focused Organization*, Harvard Business Press, 2001

⁹ Robert S. Kaplan and David P. Norton, *The Strategy-Focused Organization*, HBS Press, 2001

¹⁰ Robert S. Kaplan, David P. Norton, *STRATEGY MAPS – converting intangible assets into tangible outcomes*,

HBS Press, 2004. p. 10, p.30.

¹¹ Robert S. Kaplan, David P. Norton, *The Execution Premium – Linking Strategy to Operations for Competitive Advantage*, Kaplan, R., Norton, D., HBP, Boston, MA, ©2008.

¹² You can download the corporate brochure of the Palladium Group from here: [Palladium Group](#).

¹³ Palladium Group brochure, pages 14 and 15

¹⁴ To learn more about the Hall of Fame and see who are the latest Hall of Fame winners visit:

<http://event.thepalladiumgroup.com/Results/hof/Pages/Overview.aspx>

¹⁵ To learn more about XPC visit: <http://event.thepalladiumgroup.com/Solutions/Products/XPC/Pages/Welcome.aspx>.

¹⁶ Robert S. Kaplan, David P. Norton, *The Execution Premium – Linking Strategy to Operations for Competitive Advantage*, Kaplan, R., Norton, D., HBP, Boston, MA, ©2008, p. 149.

¹⁷ Robert S. Kaplan, David P. Norton, *The Execution Premium – Linking Strategy to Operations for Competitive Advantage*, Kaplan, R., Norton, D., HBP, Boston, MA, ©2008, p. 150.

Performance Measures: Critical Success Factors, Results, Performance, Time

To measure performance companies are using a combination of indicators which can be structured (see the diagram, below) as:

- Critical Success Factors,
- Results Indicators,
- Performance Indicators, and
- Time Indicators

The *Critical Success Factors* (CSF) are serving the top management of the company and are defined as limited number (usually between 3 to 8) of characteristics, conditions, or variables that have a direct and serious impact on the effectiveness, efficiency, and viability of an organization, program, or project. Activities associated with CSF must be performed at the highest possible level of excellence to achieve the intended overall objectives¹⁸. Examples for CSF:

- Retention of key research and development personnel,
- Reducing supply chain costs,
- Enhancing quality of services.

Results Indicators are usually grouped as Key Results Indicators (KRI) and Results Indicators (RI).

- KRIs are limited number (usually up to 10) measures that result of many actions, are usually covering long

period of time (years), and are reviewed on monthly or quarterly cycles.

- RIs are measures that are used to report what is done. Usually results are measured by different functional areas (marketing, finance, research and development, productions and operations, organizational, and so on).

Examples for KRIs:

- Customer satisfaction
- Net profit before taxes
- Employee satisfaction
- Profitability of customers
- Return on capital/investment

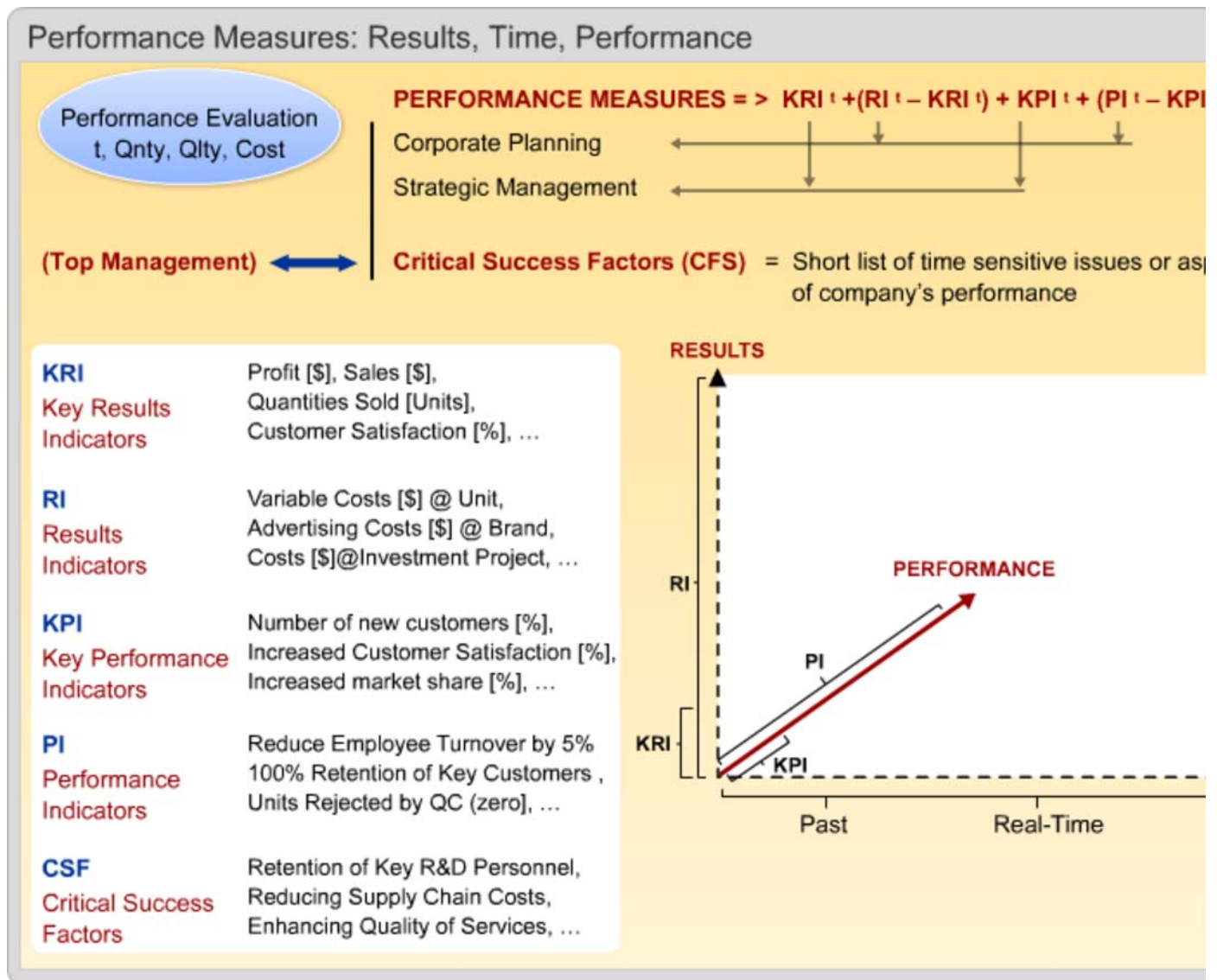
Performance Indicators can also be characterized as Key Performance Indicators (KPI) and Performance Indicators (PI).

- KPIs are limited number (usually up to 10) of indicators that are defining what needs to be done to increase the performance (of the organization, a business unit, or a functional area) dramatically. They are nonfinancial indicators that are usually measured frequently (e.g. hourly, daily, weekly), are serving the senior management team, are indicating what action is required by the staff (on a group level), are affecting one or several of the CSFs, and are encouraging appropriate action.
- PIs are indicators that are used to explain what needs to be done.

Examples for KPIs:

- Utilization of assets,
- Delivery in full on time,
- Positive company culture,
- Increasing expertise/qualification (by key personnel)
- Supporting local community

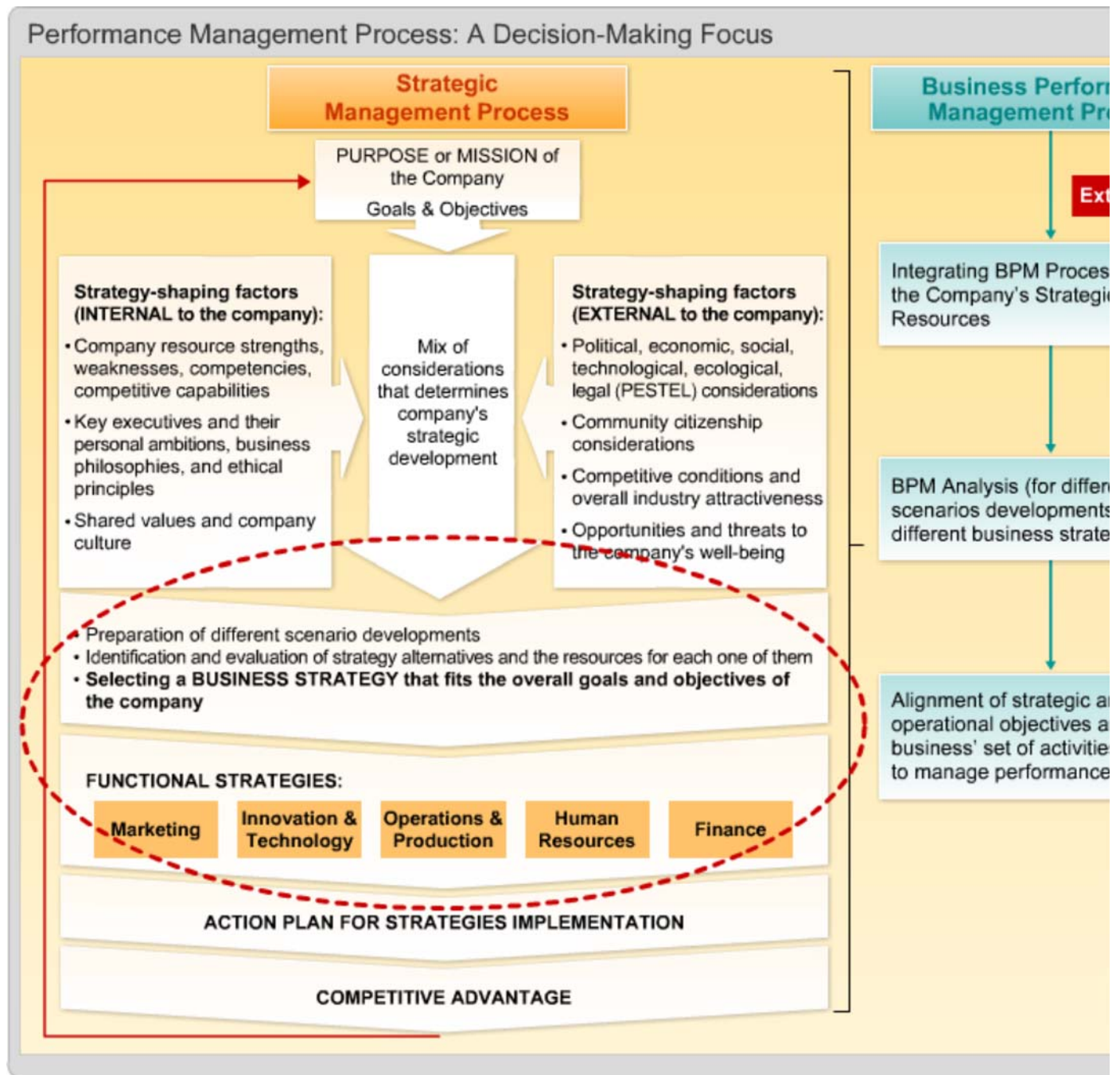
Time Indicators are based on a time scale where different values of RI, KRI, PI, KPI, CSF can be projected and monitored as part of MIS in different ways (the topic 'MIS for decision making in business' was discussed in greater details in Lecture 6).



¹⁸ Retrieved on 3/1/2012 from: <http://www.businessdictionary.com/definition/critical-success-factors-CSF.html><

Performance Management and Decision Making: A Decision-Making Focus

The major interrelated decisions and activities involved in the business performance management process are linked to the strategic management process of the company (discussed in Lecture 6 and summarized on the following diagram.



Integrating BPM Process with the Company's Strategies and Resources

We can demonstrate how decision makers are integrating the business performance management process with the company's strategies and resources with the help of our [Business Running Case](#) and the BSC approach.

A restaurant owner is working on a business strategy of the firm for the next 3 to five years. He is preparing a PESTEL analysis and a SWOT analysis and is concluding opportunities to increase (locally) the competitiveness

of the company by investing of a new technology for in-house brewing of high quality non-pasteurized beer, called BrewPub.

After a thorough evaluation

1. of the latest industry trends, legal regulations, financial requirements for manufacturing and distribution of beer
>>>> ([Click here](#) to review the documents)
2. the specifics of the BrewPub technology
>>>>> (Click here to review the documents: [Case Study – MB](#), [Case Study – Miller Coors](#), [An Example – Brewery Finance Application](#))
and
3. a broad spectrum of offers, the owner selects a proposal with a specific system configuration
>>>>> ([Click here](#) to review the system characteristics of the BrewPub)

The owner would like to separate the new BrewPub from the existing restaurant/tavern business and is planning to manage it as a separate business unit, fully controlled by the existing company.

In his plans the new BrewPub:

1. will supply the restaurant with its own brand of two types high quality draft beer (which will reduce by 50% the quantity of other beer sold and will increase the profit of the bar operations with at least 180% annually), and
2. will sell beer kegs directly to local wholesalers (the quantities sold will be at least 60% of the total capacities of the BrewPub).

The offered price for the turn-key system is \$150,000 (including: 12 months service & prophylactics; training of the personnel directly involved in the beer production and distribution; and contacts with pre-selected suppliers of key materials for the production process).

Before confirming/rejecting the offer, the owner would like to prepare a conceptual study, structured as a managerial report, that will address the following questions:

1. Overall goals and objectives of the new business unit
2. Business strategy for the next three years of operations of the BrewPub
3. Functional strategies: Marketing, Innovation, Operations, Organization, Finance
4. Evaluation of the proposed strategy and plans (based on selected critical success factors and key performance indicators)
5. Implementation plan (actions and resources)
6. Summary of the results
7. Deciding whether:
 - i. to accept the offer, or
 - ii. to redefine the starting parameters of the initial request for quotation and to request a new

- quotation (based on the new starting points discussed in the conceptual study), or
- iii. not to invest in a BrewPub at all.

The conceptual study will be prepared with the help of a *business simulation package*, called '*Strategies and Decision Support in Organizations*'.

The algorithm of the business simulation is following the logic of the strategy development and its implementation. The results of each simulation cycle have to be analyzed with the help of a performance evaluation table – see the next section of the lecture.

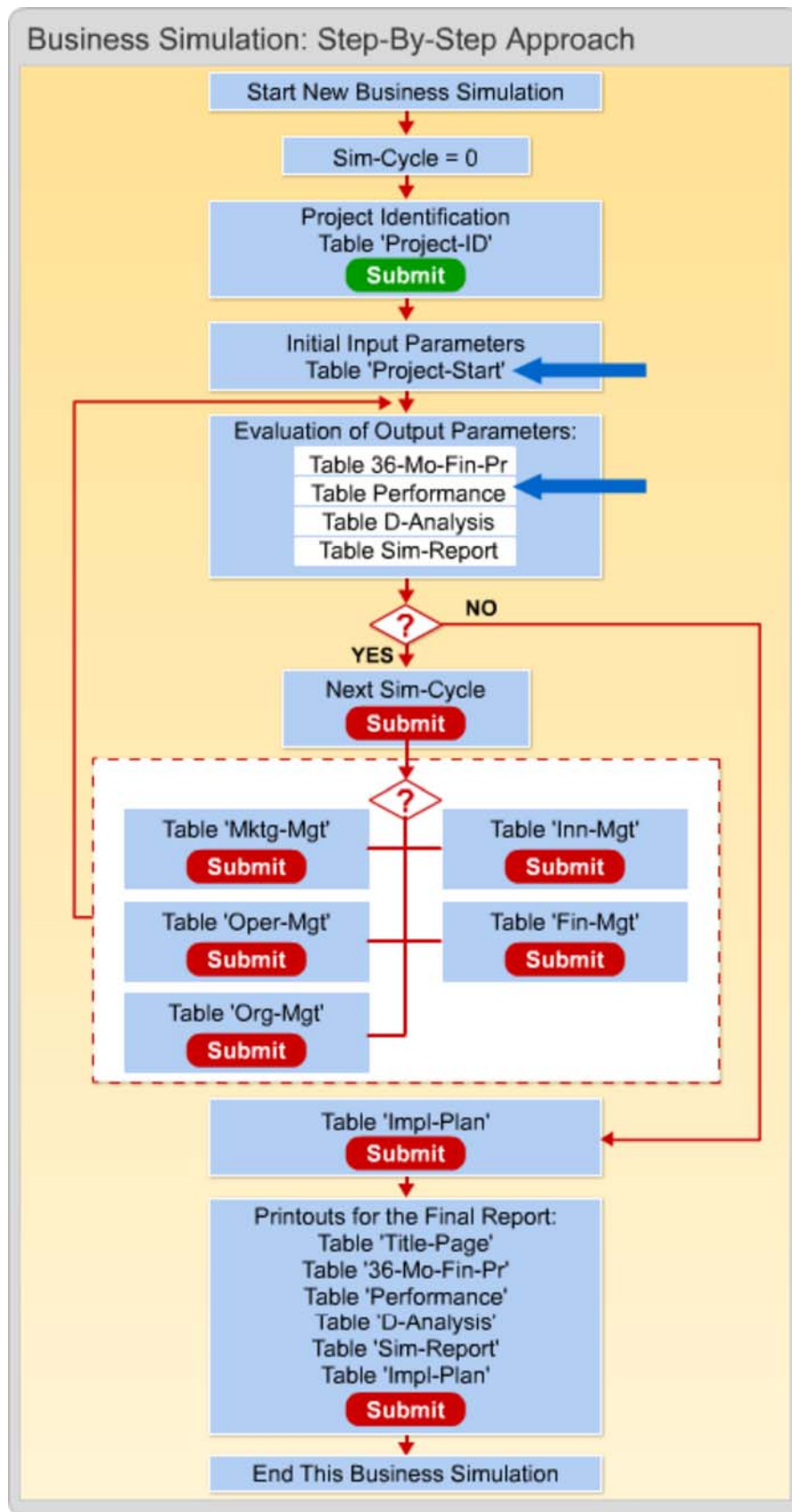
>>>> ([Click here](#) to download the software)

>>>> ([Click here](#) to review the Tutorial for AD715: Business Simulation)

BPM Analysis (For Different Scenario Developments and Different Business Strategies)

To demonstrate how decision makers are evaluating different scenario developments and different business strategies with the help of the BPM Analysis, we will follow the logic of the business running case and the business simulation specifically developed and implemented for AD715.

The main process algorithm of the business simulation (also called 'Sim-Navigator') is demonstrated in the diagram, below.



First, the business owner of the existing restaurant is reviewing the parameters of the new project (defined in the table 'Project-Start') and is analyzing it with the help of the table 'Performance'.

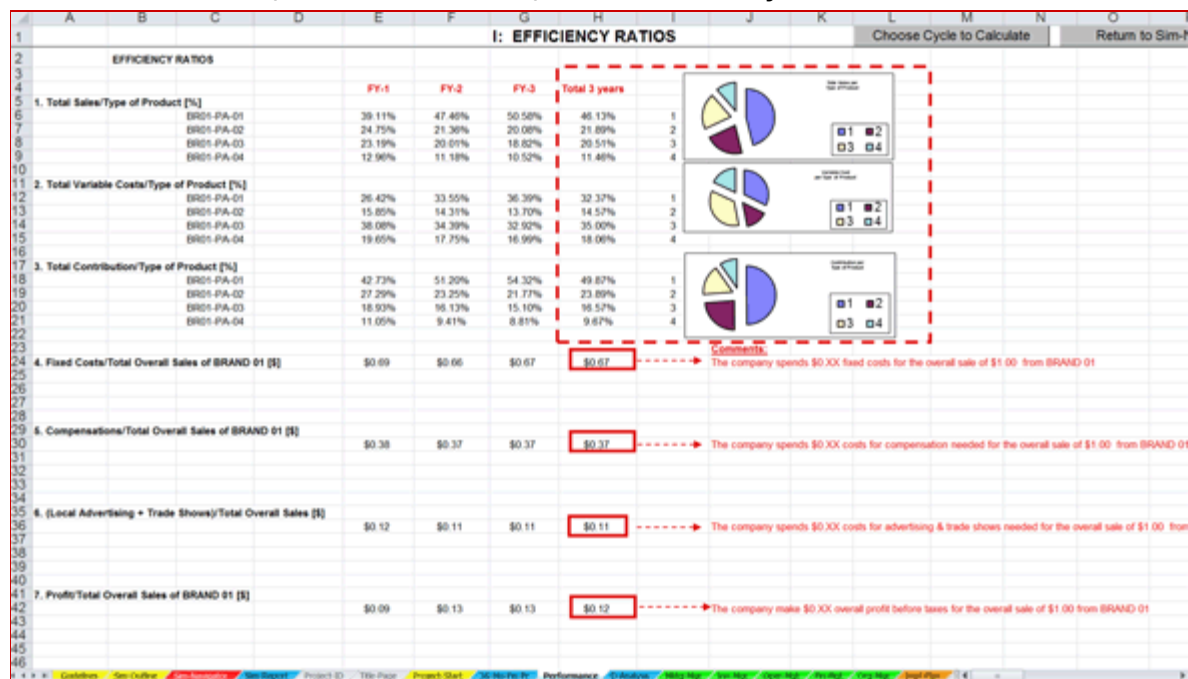
Then he is continuing with the development of different functional strategies.

Finally, he is evaluating the overall characteristics of the business strategy for the new project and is preparing an implementation plan of the newly developed strategy.

In this lecture we will discuss only the table 'Performance' and how decision makers can work with it. The outline of the performance table is shown on the following two diagrams.

The first diagram is a summary of the efficiency ratios for selected performance indicators. Those ratios are different for each of the business cycles. For selected ratios the program is creating dashboards. (**Note:** click the image below to view the full-sized diagram)

Business Simulation, table 'Performance', section 'Efficiency Ratios'



The second diagram displays the second half of the performance table:

- At the top are the Key Performance Indicators (KPI), as defined in the table 'Project-Start' and calculated in the table '36-Mo-Fin-Pr' (this table, also called '36 Months Financial Pro Forma', was discussed in Lecture 10.
- At the bottom are the Key Success Indicators (KSI), as defined in the table 'Project-Start' and calculated in the table '36-Mo-Fin-Pr'.

Business Simulation, table 'Performance', section 'KPI and KSI'

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The purpose of the data analysis is to make a decision with indicators need to be adjusted (all marked in yellow cells) to the real starting characteristics and projections for the next 36 months.

In the table 'Project-Start' the manager is defining the size of the penetrated market 'as is', without the new project. **First**, based on his realistic assessment of the 'Size of the penetrated market' (units/pints sold in the current year, FY-0), he needs to evaluate the assumptions for the 'Overall increase of the penetrated market' for the next three years of operations (FY-1, FY-2, and FY-3).

Example:

'Size of the penetrated market' [units]: FY-0 = 150,000

		FY-1	FY-2	FY-3	Overall
Overall increase of the penetrated market'	[%]	110%	118%	125%	

[\$] 165,000 177,000 187,500 529,500

$$165,000 = 150,000 \times 110\%$$

$$177,000 = 150,000 \times 118\%$$

$$187,500 = 150,000 \times 125\%$$

Second, the manager is using the parameters 'Capacity of the new technology' and 'Utilization of the new technology' to define the 'Overall increase of the penetrated market' and 'Projected structure of the annual sales, new penetrated market'.

Example:

'Capacity of the new technology' [m' x/units/annually] = 496,000 (see the Business Running Case)

'Utilization of the new technology' [%]:	FY-1 = 65%
	FY-2 = 75%
	FY-3 = 85%
'Utilization of the new technology' [units]:	FY-1 = 496,000 x 65% = 322,400
	FY-2 = 496,000 x 75% = 372,000
	FY-3 = 496,000 x 85% = 421,600
	FY1+FY2+FY3 = 1,116,000

'Overall increase of the penetrated market' [%]: $(1,116,000 / 529,500) \times 100\% = 210.77$

'Projected structure of the annual sales, new penetrated market' [%]:	FY-1 = 28.88%
	FY-2 = 33.33%
	FY-3 = 37.79%
	[units]: same as above

Third, the business owner evaluates the assumptions for the distribution ratios of the beer from the BrewPub (between the restaurant and wholesalers).

Example:

	[units]	[%]
'Projected consumption in the existing business, new brand only'	FY-1 = 85,388	26.49%
	FY-2 = 121,688	32.71%
	FY-3 = 162,094	38.43%
	Overall = 369,169	33.08%
'Projected sales to wholesalers' [units]	FY-1 = 236,921	73.51%
	FY-2 = 250,284	67.29%
	FY-3 = 259,659	61.57%
	Overall = 746,858	66.92%

Example:

FY-1 (322,309) = FY-1 (85,388) + FY-1 (236,921)

$$\begin{array}{ccc}
 (100\%) & & (26.49\%) \\
 \boxed{\text{'Projected structure of the annual sales, new penetrated market' [units]}} & = & \boxed{\text{'Projected consumption in the existing business, new brand only' [units]}} \\
 & & + \boxed{\text{'Projected sales to wholesalers' [units]}} \\
 & & (73.51\%)
 \end{array}$$

Alignment of Strategic and Operational Objectives and the Business' Set of Activities in Order to Manage Performance

To demonstrate the process of alignment of strategic and operational objectives and the business' set of activities in order to manage performance, we will continue to use the example from the previous section of this lecture.

Based on the forecasted quantities sold (table 'Project-Start') and the calculated values for selected indicators (see the right site of the Diagram: Business Simulation, table 'Performance', section 'KPI and KSI'), the manager is analyzing the discrepancies and is planning to make the appropriate changes in the 'Project-Start' (cycle 0) and/or in table 'Mktg-Mgt' (cycle 1).

Example:

		'Project-Start'	'Performance'	Change to (in cycle 1)
'Projected consumption in the existing business, new brand only' [units]	FY-1:	85,388	108,000	85,388
	FY-2:	121,688	144,000	121,688
	FY-3:	162,094	165,000	162,094
	Overall:	369,169	417,000	369,169
'Projected sales to wholesalers' [units]	FY-1:	236,921	162,144	236,921
	FY-2:	250,284	191,760	250,284
	FY-3:	259,659	236,880	259,659
	Overall:	746,858	591,080	746,858

Next, the manager is analyzing the key success indicators. Changes have to be made for all three indicators and all three years.

Example:

		FY-1	FY-2	FY-3
'Introducing of company's brand'	'Project-Start'	65%	75%	85%
	'Performance'	54.52%	67.69%	67.75%
'Retain of critical technology personnel'	'Project-Start'	1	1	1
	'Performance'	0.5	0.56	0.6
'Retain of critical marketing personnel'	'Project-Start'	1	1	2
	'Performance'	1.5	1.67	1.8

It is important to repeat again: the same systematic evaluation of the performance indicators has to be implemented after every simulation cycle.

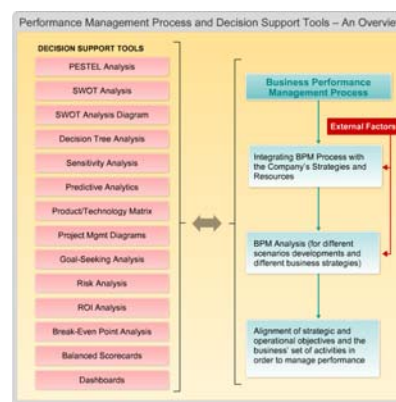
Performance Management and Decision Support Tools

Managers on corporate, business, and functional levels of the company are measuring the performance of programs, projects, tasks, activities and are making decisions with the help of the spectrum of decision support tools – see the diagram, below.

Most of the decision support tools have been already discussed in Lectures 4 to 10.

Earlier in this lecture we discussed the importance of the BSCs. You can use the recommended template to prepare your own BSC and to apply it in preparation for Assignment 3, in other graduate courses or in your profession as a manager.

>>>> ([Click here](#) to download the BSC template)



Demo Exercise

- [Part 4](#)
- [Assignment 3, section "Implementation Plan"](#)

■ Module 12 – Decision Making and the Managers of the 21st Century

Decision Making and the Managers of the 21st Century

Learning Objectives

After you complete this lecture, you will be familiar with the following concepts:

- The New Landscape of Decision Making
- In Praise of the Incomplete Leader
- Behavioral Economics of Decision Making
- Overview of the Business Analytics Model

The New Landscape of Decision Making

In his article *Make Better Decisions*¹, Thomas Davenport² discusses why it is important to focus on decision making and he proposes four steps to those who would like to be good manager:

1. List and prioritize the decisions that must be made
2. Assess the factors that go into each, such as who plays what role, how often the decision must be made, and what information is available to support
3. Design the roles, processes, systems, and behaviors your organization needs
4. Institutionalize decision tools and assistance

Davenport also describes the strengths and weaknesses of the following seven different approaches to decision making, called by him 'The New Landscape of Decision Making':

1. Small-group process
2. Analytics
3. Automation
4. Neuroscience
5. Behavioral economics
6. Intuition
7. Wisdom of crowds

For better understanding of the landscape of decision making and its complexity, I will review three of the topics discussed in the 'The New Landscape of Decision Making', where the focus is on:

- The missing skills, or how the best leaders understand where their missing skills are and are relying on others;
- The behavioral economics of decision making, or how to take steps to contradict and avoid biases;
- The overview of the business analytics model.

I am including the abridged versions of two articles^{3 4} and a book⁵ that I consider especially relevant to the above listed topics, but strongly recommend that you read the original text.

¹ Davenport, T.: Make Better Decisions, Harvard Business Review, Nov. 2009

² Short list of books and articles by Davenport on this subject:

Davenport and others: Analytics at Work – Smarter Decisions Better Results, Harvard Business Press, 2010
Davenport and others: Competing on Analytics – The New Science of Winning, Harvard Business Press, 2007
Davenport and others: Meeting Challenges Along the Way, Harvard Business Press, 2010

³ Ancona, D., others: *In Praise of the Incomplete Leader*, Harvard Business Review, February 2007, 92-100

⁴ Kahneman, D., Lavallo, O., Sibony, O.: Before You Make That Big Decision, Harvard Business Review, June 2011

⁵ Laursen, G. and Thorlund, J.: *Business Analytics for Managers – Taking Business Intelligence Beyond Reporting*, Wile & Sons, Inc., 2010]

In Praise of the Incomplete Leader

Abridged version of the article by Ancona, D., others: *In Praise of the Incomplete Leader*, Harvard Business Review, February 2007, 92-100.

In today's world the executive's job is no longer to command and control but to cultivate and coordinate the actions of others at all levels of the organization. Only when the leaders come to see themselves as incomplete – as having both strengths and weaknesses – will they be able to make up for their missing skills by relying on others.

Incomplete leaders find people throughout their company who can complement their strengths and offset their weaknesses. To do this, understand the four leadership capabilities organization's needs. Then diagnose your strength in each.

Capability	What it means	Example	Look for help in this capability if you...
Sensemaking	Constantly understanding changes in the business environment and interpreting their ramifications for your industry and company	A new CEO asks, "How will new technology reshape our industry?" "How does globalization of labor markets affect our recruitment strategy?"	• Feel strongly that you are always right • Frequently get blindsided by changes in your company or industry • Feel resentful when things change
Relating	Building trusting relationships, balancing advocacy (explaining your viewpoints) with inquiry (listening to understand others' viewpoints), and cultivating networks of supportive confidants	Former Southwest Airlines CEO Herb Keller excels at building trusting relationships. He wasn't afraid to tell employees he loved them, and reinforced those emotional bonds with equitable compensation and profit sharing	• Blame others for failed projects • Feel others are constantly letting you down or that they can't be trusted • Frequently experience unpleasant, frustrating, or argumentative interactions with others
Visioning	Creating credible and compelling images of a desired future that people in	eBay Pierre Omidyar envisioned a new way of doing large-scale retailing:	• Often wonder "Why are we doing this?" or "Does it really

	the organization want to create together	an online community where users took responsibility for what happened and had had equal access to information	matter?" • Can't remember the last time you felt excited about your work • Feel you are lacking sense of larger purpose
Inventing	Creating new ways of approaching tasks or overcoming seemingly insurmountable problems to turn visions into reality	eBay CEO Meg Whitman helped bring Omidyar's vision of online retailing to life by inventing ways to deal with security, vendor reliability, and product diversification	• Have difficulty relating the company's vision to what you are doing today • Notice gaps between your firm's aspirations and the way work is organized • Find that things tend to revert to business as usual

Engage in sensemaking

1. Get data from multiple sources: customers, suppliers, employees, competitors, other departments, and investors.
2. Involve others in your sensemaking: Say what you think you are seeing, and check with people who have different perspectives from yours.
3. Use early observations to shape small experiments in order to test your conclusions. Look for new ways to articulate alternatives and better ways to understand options.
4. Do not simply apply existing frameworks but instead be open to new possibilities. Try not to describe the world in stereotypical ways, such as good guys and bad guys, victims and oppressors, or marketers and engineers.

Build relationships

1. Spend time trying to understand other's perspectives, listening with an open mind and without judgment.
2. Encourage others to voice their opinions. What do they care about? How do they interpret what's going on? Why?

3. Before expressing your ideas, try to anticipate how others will react to them and how you might best explain them.
4. When expressing your ideas, don't just give a bottom line; explain your reasoning process.
5. Assess the strengths of your current connections: How well do you relate to others when receiving advice? When giving advice? When thinking through difficult problems? When asking for help?

Create a vision

1. Practice creating a vision in many arenas, including your work life, your home life, and in community groups. Ask yourself, "What do I want to create?"
2. Develop a vision about something that inspires you. Your enthusiasm will motivate you and others. Listen to what they find exciting and important.
3. Expect that not all people will share your passion. Be prepared to explain why people should care about your vision and what can be achieved through it. If people don't get it, don't just turn up the volume. Try to construct a shared vision.
4. Don't worry if you don't know how to accomplish the vision. If it is compelling and credible, other people will discover all sorts of ways to make it real – ways you never could have imagined on your own.
5. Use images, metaphors, and stories to convey complex situations that will enable others to act.

Cultivate inventiveness

1. Don't assume that the way things have always been done is the best way to do them.
2. When a new task or change effort emerges, encourage creative ways of getting it done.
3. Experiment with different ways of organizing work. Find alternative methods for grouping and linking people.
4. When working to understand your current environment, ask yourself, "What other options are possible?"

Balancing the Four Capabilities

The following descriptions will help you recognize opportunities to develop your leadership capabilities and identify openings for working with others.

Sign of Weak Sensemaking

1. You feel strongly that you are usually right and others are often wrong.
2. Your views describe reality correctly, but others' views do not.
3. You find you are often blindsided by changes in your organization or industry.
4. When things change, you typically feel resentful. (That's not the way it should be!)

Signs of Weak Relating

1. You blame others for failed projects.

2. You feel others constantly letting you down or failing to live up to your expectations.
3. You find that many of your interactions at work are unpleasant, frustrating, or argumentative.
4. You find many of the people you work with untrustworthy.

Signs of Weak Visioning

1. You feel your work involves managing an endless series of crises.
2. You feel like you are bouncing from pillar to post with no sense of larger purpose.
3. You often wonder, "Why are we doing this?" or "Does it really matter?"
4. You can't remember the last time you talked to your family or a friend with excitement about your work.

Signs of Weak Inventing

1. Your organization's vision seems abstract to you.
2. You have difficulty relating your company's vision to what you are doing today.
3. You notice dysfunctional gaps between your organization's aspirations and the way work is organized.
4. You find that things tend to revert to business as usual.

Behavioral Economics of Decision Making

Abridged version of the article by Kahneman, D, others: *Before You Make That Big Decision*, Harvard Business Review, June 2011.

A recent McKinsey study of more than 1,000 major business investments shows that when organizations worked at reducing the effect of bias in their decision-making processes, they achieved returns up to seven percentage point higher⁶.

In his latest article⁷, Daniel Kahneman (2002 Nobel Prize in economics and behavioral psychology) discusses the dependence of executives on the judgment of their teams. The people recommending a course of action will have delved more deeply into the proposal than the executive has time to do. Inevitably, lapses in judgment creep into the recommending team's decision-making process (because its members fell in love with a deal, say, or are making a faulty comparison to an earlier business case). The article poses twelve questions that will help executives vet the quality of decisions and think through not just the content of the proposals they review but the biases that may have distorted the reasoning of the people who created them.

Decision Quality Control: A Checklist

ASK YOURSELF

1. Check for self-interested biases

Is there any reason to suspect the team making the recommendation of errors motivated by self-interest?

Review the proposal with extra care, especially for over-optimism.

2. Check for the affect heuristic

Has the team fallen in love with its proposal?

Rigorously apply all the quality controls on the checklist.

3. Check groupthink

Where there dissenting opinions within the team? Were they explored adequately?

Solicit dissenting views, discreetly if necessary.

ASK THE RECOMMENDERS

1. Check for saliency bias

Could the diagnosis be overly influenced by an analogy to a memorable success?

Ask for more analogies, and rigorously analyze their similarity to the current situation.

2. Check for confirmation bias

Are credible alternatives included along with the recommendations?

Request additional options.

3. Check for availability bias

If you had to make this decision again in a year's time, what information would you want, and can you get more of it now?

Use checklists of the data needed for each kind of decision.

4. Check for anchoring bias

Do you know where the numbers came from? Can there be:

- unsubstantiated numbers?
- extrapolation from history?
- a motivation to use a certain anchor?

Re-anchor with figures generated by other models or benchmarks, and request new analysis.

5. Check for halo effect

Is the team assuming that a person, organization, or approach that is successful in one area will be just as successful in another?

Eliminate false inferences, and ask the team to seek additional comparable examples.

6. Check for sunk-cost fallacy, endowment effect

Are the recommenders overly attached to a history of past decisions?

Consider the issue as if you were a new CEO.

ASK ABOUT THE PROPOSAL

1. Check for overconfidence, planning fallacy, optimistic biases, and competitor neglect

Is the base case overly optimistic?

Have the team build a case taking an outside view: use war games.

2. Check for disaster neglect

Is the worst case bad enough?

Have the team conduct a pre-mortem: imagine that the worst has happened, and develop a story about the causes.

3. Check for loss aversion

Is the recommending team overly cautious?

Realign incentives to share responsibility for the risk or to remove risk.

IMPROVING DECISIONS THROUGHOUT THE ORGANIZATION

1. **Organizations adopt the right mind-set.** The goal is not to create bureaucratic procedures or turn decision quality control into another element of "compliance" that can be delegated to a risk assessment unit. It is to stimulate discussion and debate. To accomplish this, organizations must tolerate and even encourage disagreements (as long as they are based on facts and not personal).
2. **Organizations rotate the people in charge, rather than rely on one executive to be the quality policeman.** Many companies, at least in theory, expect a functional leader such as a CGO or a chief strategy officer to play the role of challenger. But an insider whose primary job is to critique others loses political capital quickly. The use of a quality check may reduce this downside, as the challenger will be seen as "only playing by the rules" but high quality debate is still unlikely.
3. **Organizations inject a diversity of views and a mix of skills into the process.** Some firms form ad hoc critique teams, asking outsiders or employees rotating in from other divisions to review plans. One company calls them "provocateurs" and makes playing this role a stage of leadership development. Another, as part of the strategic planning, systematically organizes critiques and brings in outside experts to do them. Both companies have explicitly thought about their decision processes, particularly those involving strategic plans, and invested effort in honing them. They have made their decision processes a source of competitive advantage⁸.

⁶ Lovallo D, Sibony, O: The Case of Behavioral Strategy, McKinsey Quarterly, 2010, March, pdf available at: [The Case of Behavioral Strategy.pdf](#)

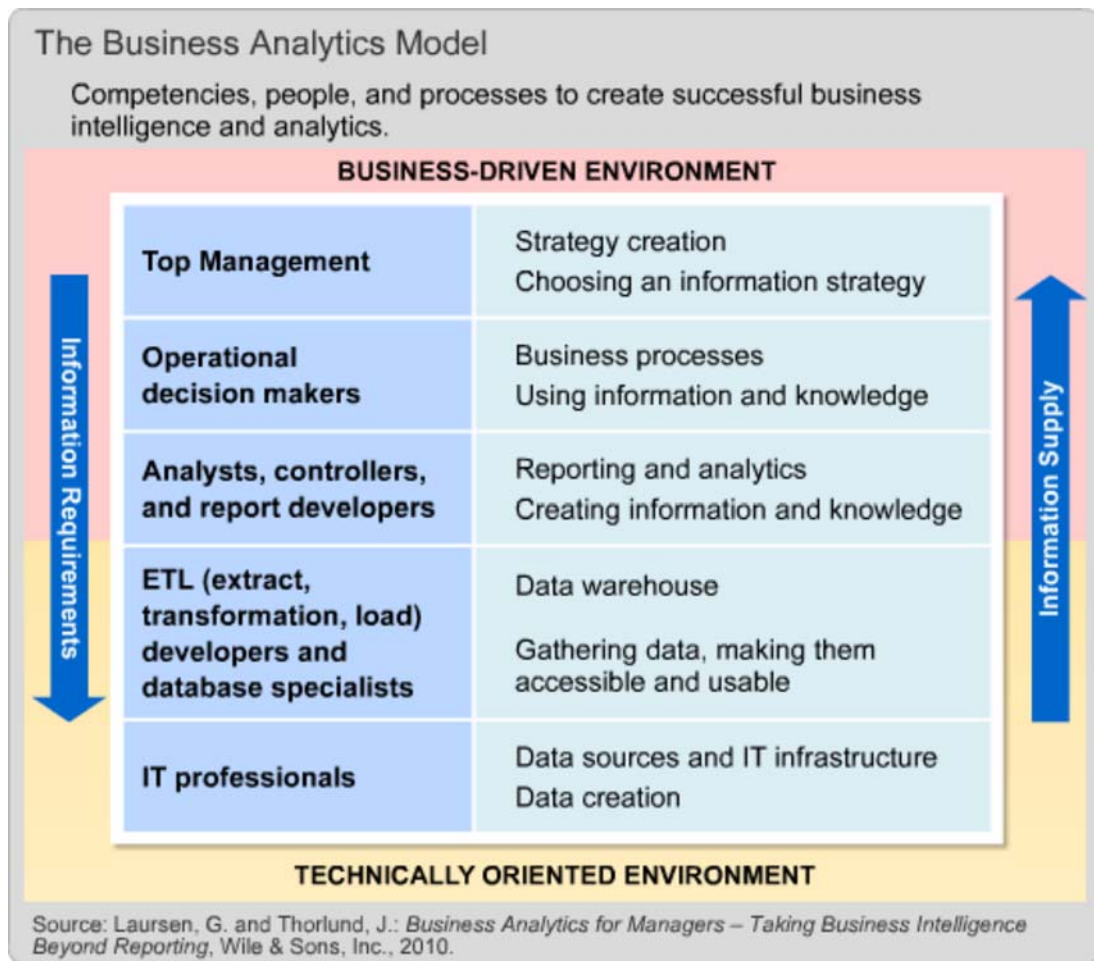
⁷ See note 5.

⁸ For more on the subject see note 5, last segment "Four steps to adopting behavioral strategy".

Overview of the Business Analytics Model

Abridged version of the book by Laursen, G. and Thorlund, J.: *Business Analytics for Managers – Taking Business Intelligence Beyond Reporting*, Wile & Sons, Inc., 2010

The business analytics model of a corporation (see below) illustrates how business analytics is a layered and hierarchical discipline⁹. Arrows show the underlying layers that are subject to layers above. Information requirements move from the business-driven environment down to the technically oriented environment. The subsequent information flow moves upward from the technically oriented environment toward the business-driven environment.



There are many competencies, people, and processes involved in the creation of the business analytics (hereinafter BA):

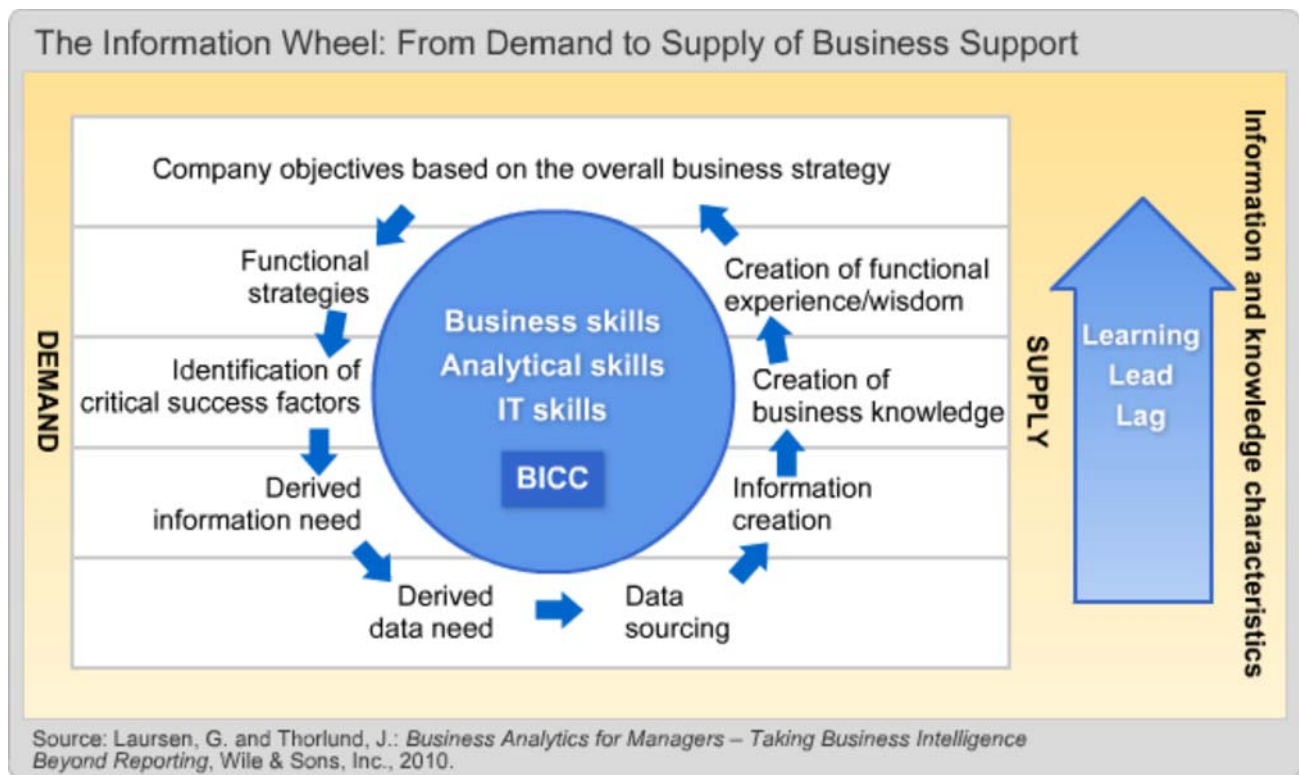
- In the top layer of the model, in the business driven environment, the management specifies or develops an information strategy based on the company's or the business area's overall business strategy.
- In the second layer, the operational decision makers' need for information and knowledge is determined in a way that supports the company chosen strategy.
- In the middle layer of the model, analysts, controllers, and report developers create the information and knowledge to be used by the company operational decision makers with the purpose of innovating and

optimizing their day-to-day activities.

- In the second layer from the bottom, in the technically oriented environment in the data warehouse, the database specialist or the ETL (extract, transformation, and load) developer merges and enriches data, and makes it accessible to the business user.
- In the bottom layer, in the technically oriented environment, the business' primary data generating source systems are run and developed by IT professionals from IT operations and development.

Successful BA processes should have a fixed structure, which always begins with the specification of the information strategy, which is derived from the objectives of the business strategy.

The most successful corporations are creating their internal business intelligence competency center¹⁰ (BICC) and are defining the primary task for BICC to deliver the right information and the right knowledge to the right people at the right time. In other words, it is a question of keeping the information wheel turning, as shown in the figure below.



⁹ This section of the lecture is based on the publication by Laursen, G. and Thorlund, J.: *Business Analytics for Managers – Taking Business Intelligence Beyond Reporting*, Wile & Sons, Inc., 2010, Ch. 1.

¹⁰ Laursen, G. and Thorlund, J.: *Business Analytics for Managers – Taking Business Intelligence Beyond Reporting*, Wile & Sons, Inc., 2010, Ch. 7.

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