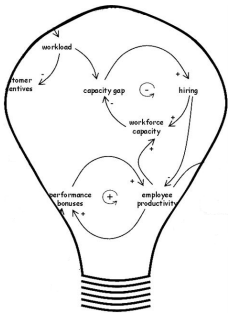
This course book preview is provided as an opportunity to see the quality of the course material and to help you determine if the course matches your needs. The preview is provided in a PDF form that cannot be printed.

It is my goal to provide a course book that is content-rich and that is useful as a reference document after the class has ended.

This preview shows selected pages that are representative of the entire course book. The pages shown are not consecutive. The page numbers as they appear in the actual course material are shown at the bottom of each page. All table-of-contents pages are included to illustrate all of the topics covered by the course.

Dave Wells - dwells@infocentric.org



Strategic Feedback

Strategy Mapping Meets Systems Thinking

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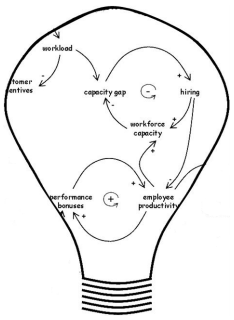
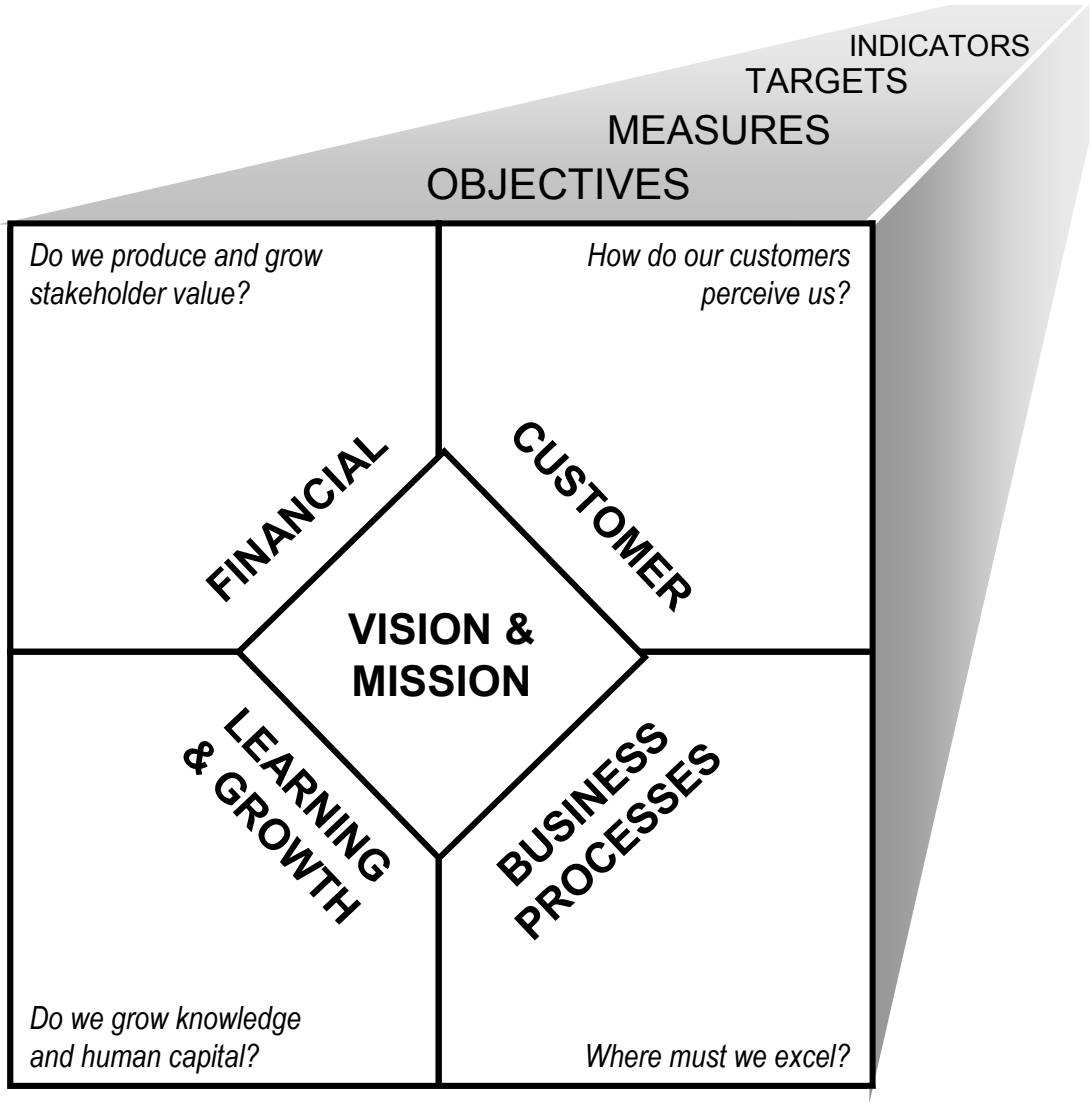


Module 1

Introductory Concepts

Managing for Strategic Results

Framework for Strategic Management



Managing for Strategic Results

Framework for Strategic Management

INTRODUCTION

Practitioners and academics working in the strategy discipline have recognized the need for a framework to guide organizations that are trying to achieve their strategic results. The ability to reliably and predictably generate strategic results and to continually improve their business performance depends on many pieces of the puzzle working together. Strategy and its execution cannot be viewed as independent activities. Alignment of thought and approach is critical for success within organizations.

Based on this need to link the components of strategic management together, different management frameworks have been developed over the past number of years. Some of the parts that need to work together include Strategic Planning, Tactical Planning, Resource Coordination, Execution, Business Measurement, Process Improvement and Business Optimization.

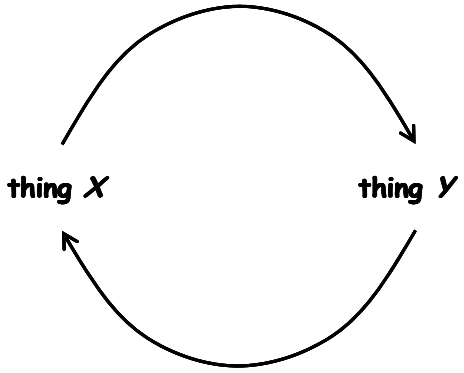
This course will focus on the Balanced Scorecard framework developed by Robert Kaplan and David Norton as a foundation for further discussion and examples.

THE BALANCED SCORECARD FRAMEWORK

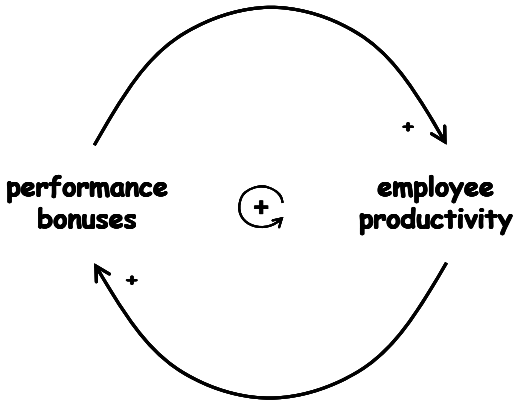
The Balanced Scorecard Framework is based on the theory that a sustainable and healthy business requires a balanced approach to strategy, focus, short-term goals, and long-term goals and execution. By looking at a business through a set of balanced perspectives, i.e. finances, customers, internal processes, and innovation, a strategy can be linked to successful execution using a common set of measurements that communicates strategy and monitors progress to meeting objectives. This framework will be discussed in more detail in a later section of the course.

Systems Thinking

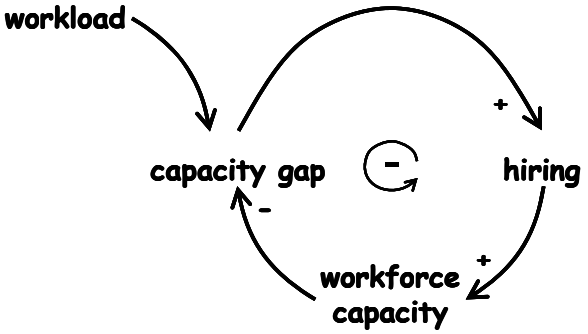
Definition and Description



The interactions among two or more things create circular effects or feedback loops. The behavior of a system (distinct from behaviors of the individual parts) is driven by the collective feedback that occurs throughout the system. **Feedback** is a core concept of systems thinking.



A reinforcing loop encourages and promotes a pattern of behavior in a system. Reinforcing loops amplify the behaviors of the things that interact within the loop. A reinforcing loop "feeds on itself" to produce continued growth or continued decline.



A balancing loop seeks equilibrium between two things that participate in the loop. They are also called goal-seeking loops because the work to achieve balance between a current state and a desired state.

Systems Thinking

Definition and Description

DEFINITION

In his book, *The Fifth Discipline* [2], Peter Senge provided a high level definition of Systems Thinking with the following statements.

"Systems Thinking is the discipline for seeing wholes. It is a framework for seeing interrelationships rather than things. It is a discipline for seeing the structures that underlie complex situations… ".

DESCRIPTION

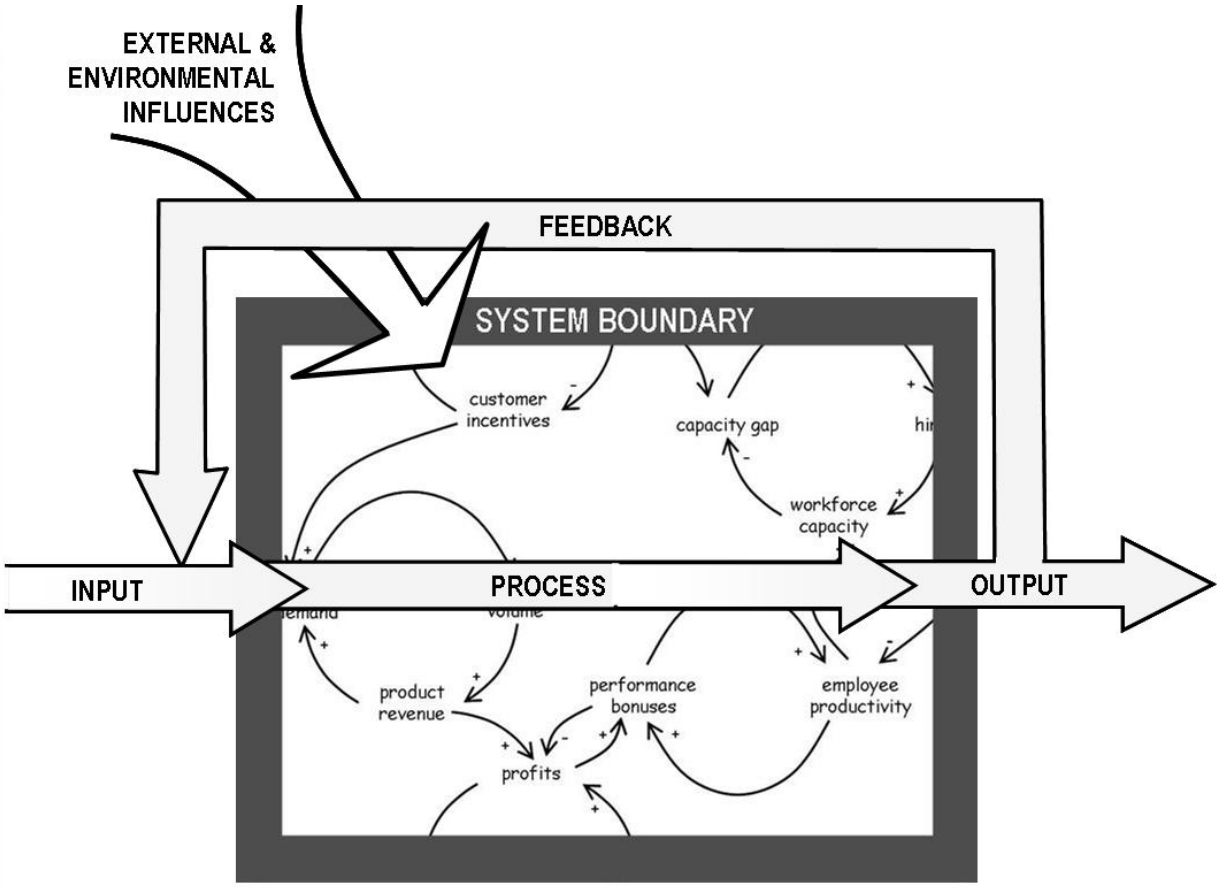
The application of Systems Thinking starts with developing an understanding of how components interact with each other to form a more complex whole. The interactions between the components are defined as the actions and reactions taking place between the individual components. These interactions are referred to as "feedback" mechanisms. By understanding the mechanisms of feedback that exist within a system, structural patterns can be identified that can identify options on how to change the behavior of the complex system.

The Systems Thinking approach allows us to see behaviors within the system that are the result of causal loops rather than simple liner cause and effect relationships. This approach recognizes that every action taking place within a system is also a function of the reaction that it receives from the affected component. Repeatable patterns of behavior can be identified in order to develop suitable change strategies to implement long term change to a complex system.

The two major building blocks of Systems Thinking are feedback loops and delays. There are two types of feedback. The first one is called "Reinforcing Feedback" or "Positive Feedback". This type of feedback causes growth to take place. The second type is called "Balancing Feedback" or "Negative Feedback". It works like a brake. It causes the growth mechanism to slow down or stabilize. However due to the dynamics in any system, effects do not occur immediately upon being disturbed by the cause. There are natural delays within systems that separate the effects from their causes over time.

Systems Thinking

Finding the Right Perspective



Where to begin?
Where is the system boundary?
How much detail to include?
How will I know when I'm done?

Systems Thinking

Finding the Right Perspective

SCOPE

Systems thinking techniques and approaches are normally applied to solve problems and gain insight into systems within the context of real situations. Because each situation will have its own unique set of objectives and constraints, it is important to determine the appropriate scope definition and level of detail required from a modeling effort. There is a basic trade-off that must be made between modeling cost and utility of the results.

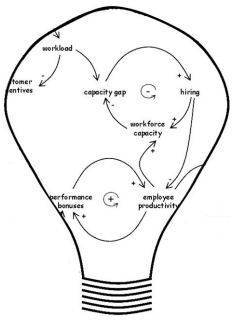
Systems Thinking techniques will consider the system as a whole. However, it is the system modeler's discretion to determine what the system boundaries are that defines the scope and what level of detail should be captured in terms of sub-systems, the number of feedback mechanisms and the time scale used for assessing delays in the system.

APPROACHES

Scope and granularity should be considered and at least initially defined prior to the system modeling effort in order to guide the team. Because system models represent something real that is complex, it is difficult to make exact decisions initially about scope. However an initial should be made recognizing that it will evolve as the effort provides new insights to the modeling team.

A variety of approaches can work to uncover the detail needed by the model. Top-down, bottom-up and hybrid efforts can all be applied. The key message is that the modeling effort will uncover information that will drive the effort forward. To keep the effort on track, evaluation criteria should be maintained throughout the effort regarding decisions that will have to be made regarding scope and granularity.

Embrace the fact that the modeling effort will be iterative and that feedback learned from the previous activities will drive decisions about scope, boundary and granularity issues.



Module 2

Framing the Strategic Management Problem

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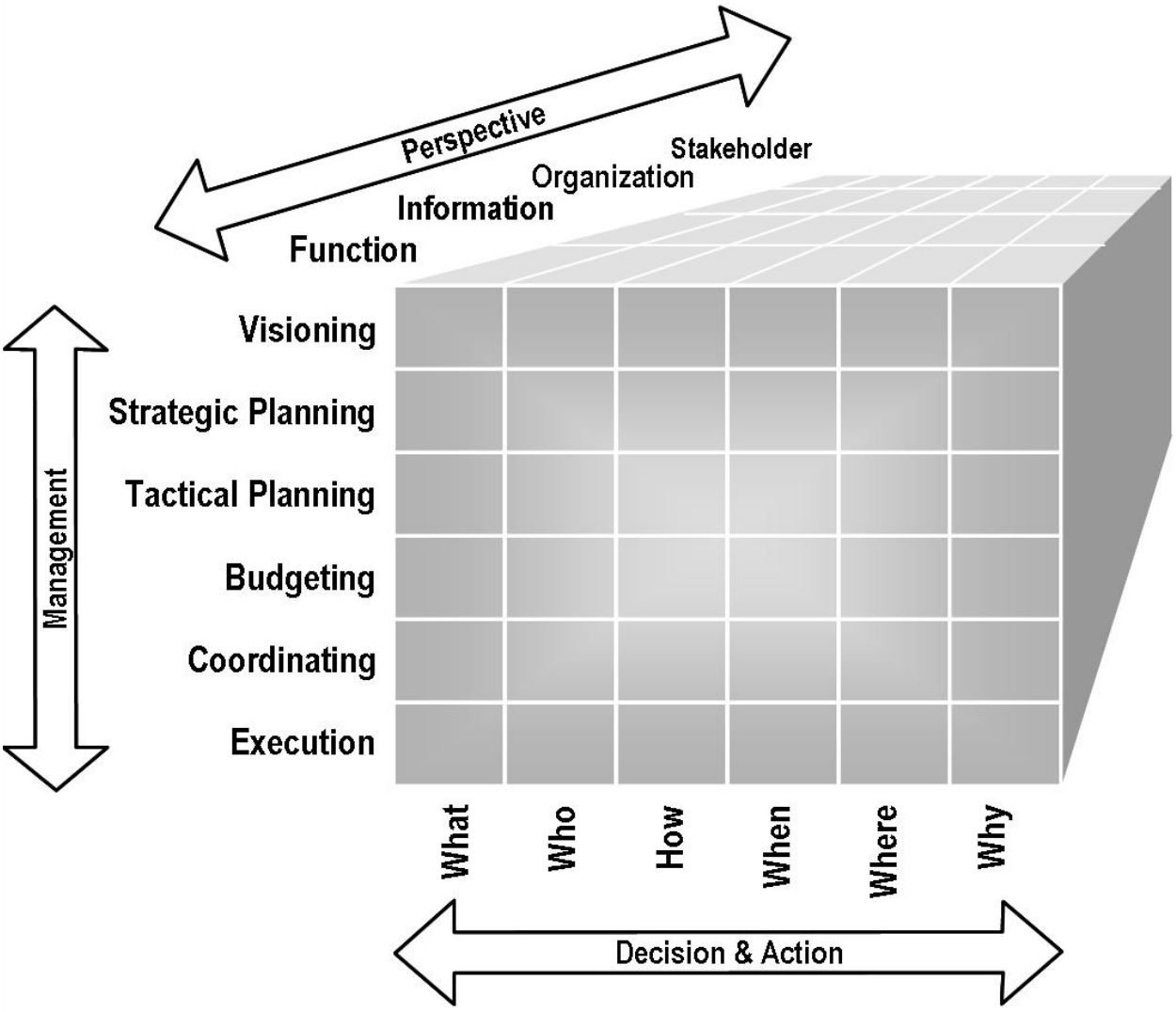
The Strategic Management Process

Functional Perspective – A Combined View



The Strategic Management Process

Functional Perspective – A Combined View

PURPOSE

The Functional Perspective of the Strategic Management Process becomes a two dimensional view by combining the Management Levels with the Decision Categories. This perspective provides a tabular perspective into what functionality must be provided by the process to the organization to help ensure that the strategic objectives will be created.

COMBINED VIEW

The combined view shows that there are 36 cells of activity that must be coordinated by the Strategic Management process.

By answering the six questions at each management level, it becomes clear that the following type of information is generated.

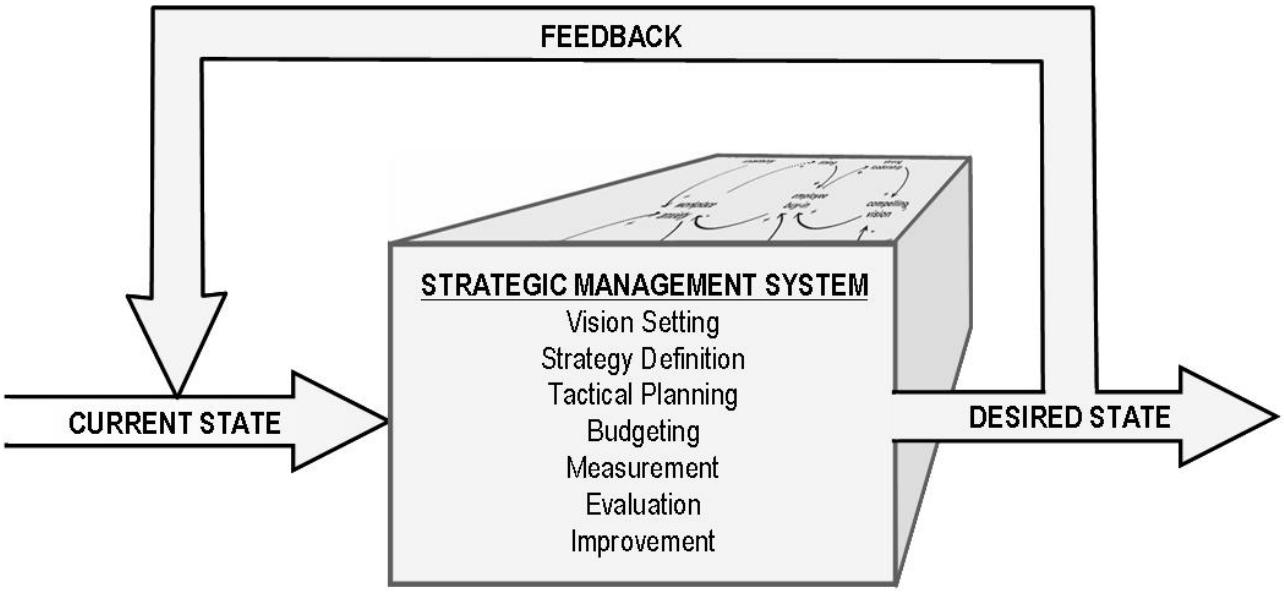
1. Activity to be executed
2. Responsible party for executing
3. Deadlines or milestones for executing
4. Location of the activity
5. The process to be used
6. The objective to be achieved

If this information is created across all six management levels, then the details of execution should align with the big picture strategic objectives.

A key point to recognize is the rapid increase in granularity of detail as the you navigate from top to bottom in the management levels. The implication of this is the large amount of details that must be generated towards the lower regions of the framework. Alignment of the six decision categories is also difficult horizontally across the organization because there are many interrelated activities that must take place in support of the Execution level.

A Systems Perspective

System Components



A Systems Perspective

System Components

PURPOSE

The major system components provide a general structure to the systems being studied with Systems Thinking. The major components provide a template that can be used for completeness checking when systems are being defined initially.

SUBSYSTEMS

Each of the management levels defined in the functional perspective is modeled as a subsystem within the Strategic Management system.

The following preliminary subsystems are identified as components of the Strategic Management System.

- Vision Setting
- Strategy Definition
- Tactical Planning
- Budgeting and Planning
- Coordination and Scheduling
- Execution
- Measurement
- Evaluation
- Improvement

This list of subsystems will be refined in a later section. Each of these subsystems includes individual components that address the 6 categories of decisions and actions.

INPUTS

The primary input to the Strategic Management system is the current state of the organization. The current state can be measured with a variety of factors including financial variables, stakeholder satisfaction variables, process variables, etc.

OUTPUTS

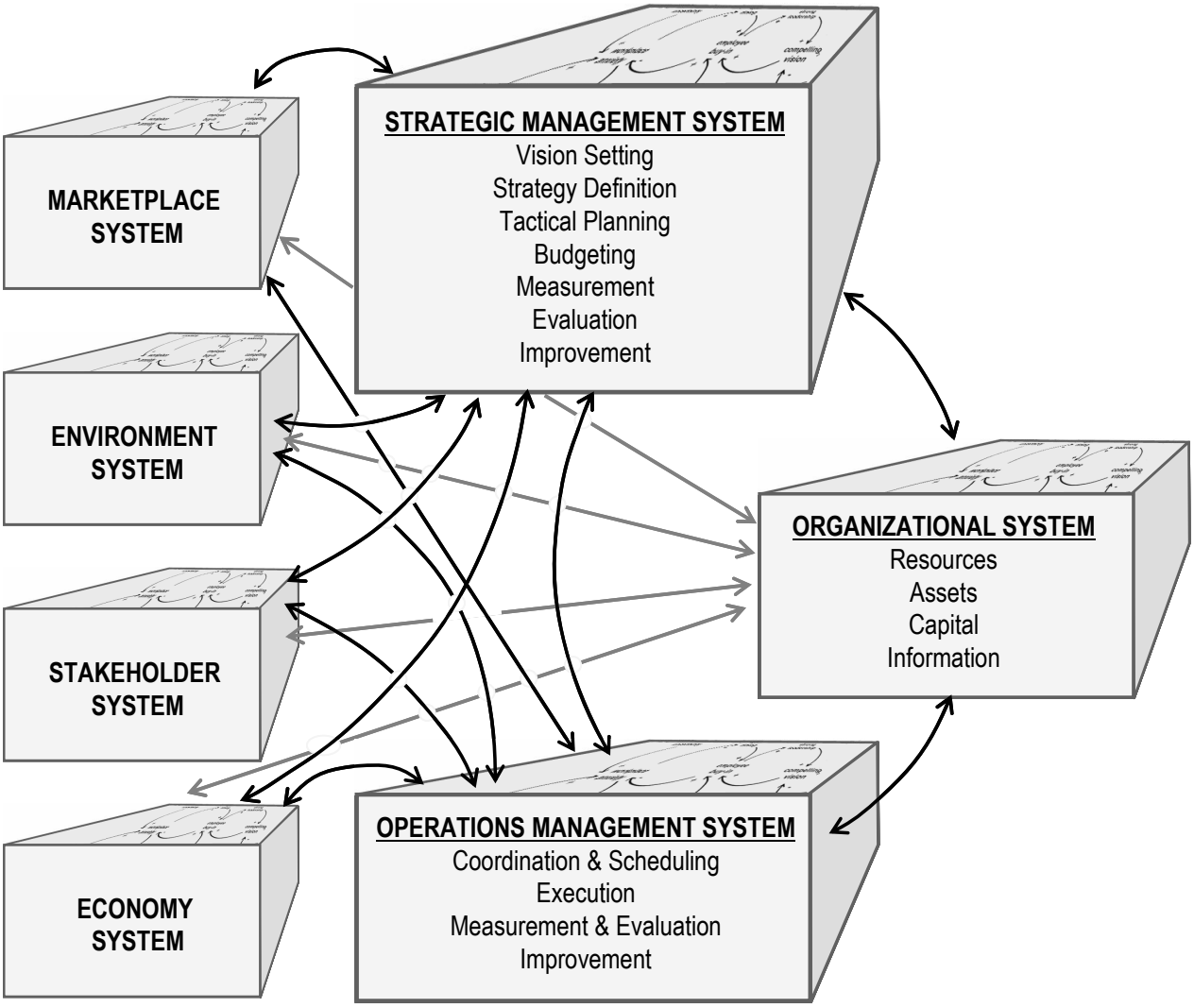
The primary output of the Strategic Management system is the desired future state of the organization. The desired future state is defined by the conditions that management deems acceptable. Theses conditions are described by the strategic objectives of the organization.

FEEDBACK

The major feedback loop is based on the intermediate state of the organization after the system starts operating. As time moves forward, the initial state is modified. The feedback loop provides comparative information between the initial state variables and the current state variables as the system operates.

A Systems Perspective

External Systems



A Systems Perspective

External Systems

PURPOSE

It is recognized that everything is connected to everything else and that the entire world is one large system. However to help us model, understand and manage systems, their scope must be reduced to manageable levels. To achieve this, it is recognized that simplifying assumptions are made about where system boundaries exist. These assumptions are made to enable the modeler to create reasonable system models with simplified scope. The independent system models can then be brought back to together to study how they interact with each other.

External systems will operate independently from each other but they may share common information and they can influence the behavior of external systems and be influenced by external systems.

SYSTEM BOUNDARY

The Strategic Management System boundary is defined to include the following subsystems that were introduced earlier.

- Vision Setting
- Strategy Definition
- Tactical Planning
- Budgeting
- Measurement
- Evaluation
- Improvement

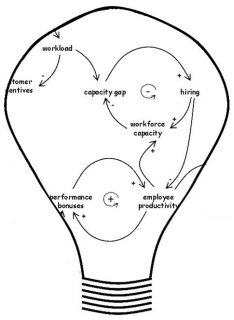
EXTERNAL SYSTEMS

The following two subsystems are now defined to be part of a new system called Operations Management

- Coordination and Scheduling
- Execution

The major external systems that will interact with and be influenced by the Strategic Management system are shown below.

- Operations Management
- Organizational (including resource, asset, capital, process and information subsystems)
- Stakeholder
- Marketplace
- Physical Environment
- Economy



Module 3

Linear Approach to Strategic Management

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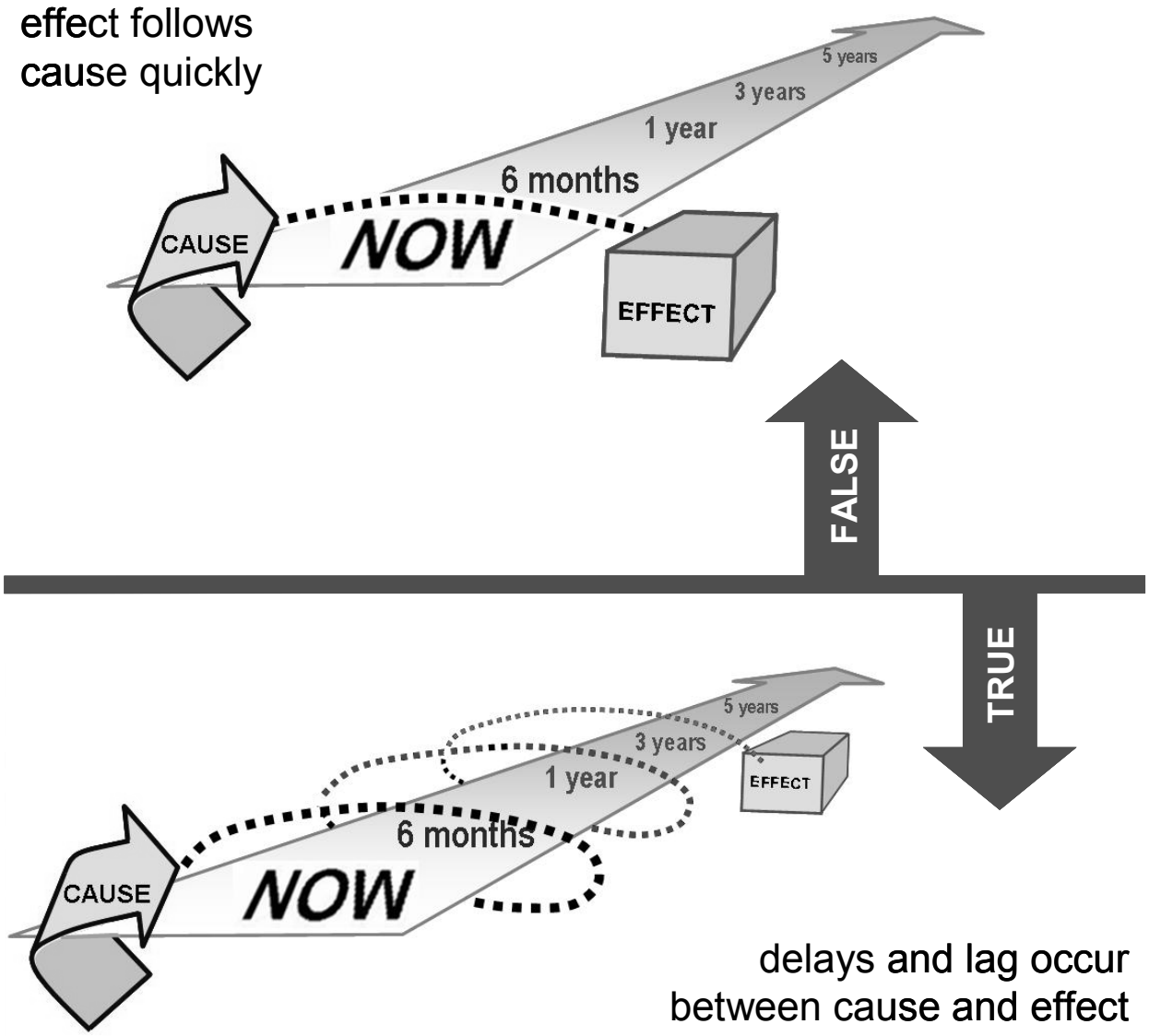
Characteristics of the Linear Approach

Time Based Dependencies



Characteristics of the Linear Approach

Time Based Dependencies

SEQUENTIAL DEPENDENCIES OVER TIME

In reality, everything does not happen at the same time. We understand that some events may occur in parallel with each other, while other events have sequential dependencies and must execute according to those rules. Events also have durations. Events that produce effects have unique time durations that are required for the event to complete itself. How causes and effects are separated over time, the time durations necessary to complete a response and the sequential dependencies between causes and effects represent some of the complexities that managers must understand as they formulate their plans and activities.

DYNAMIC RESPONSES MEASURED OVER TIME

The dynamic response of an object to an event is a description of how the effect will take place as a function of time. Dynamic responses can be defined according to the following properties.

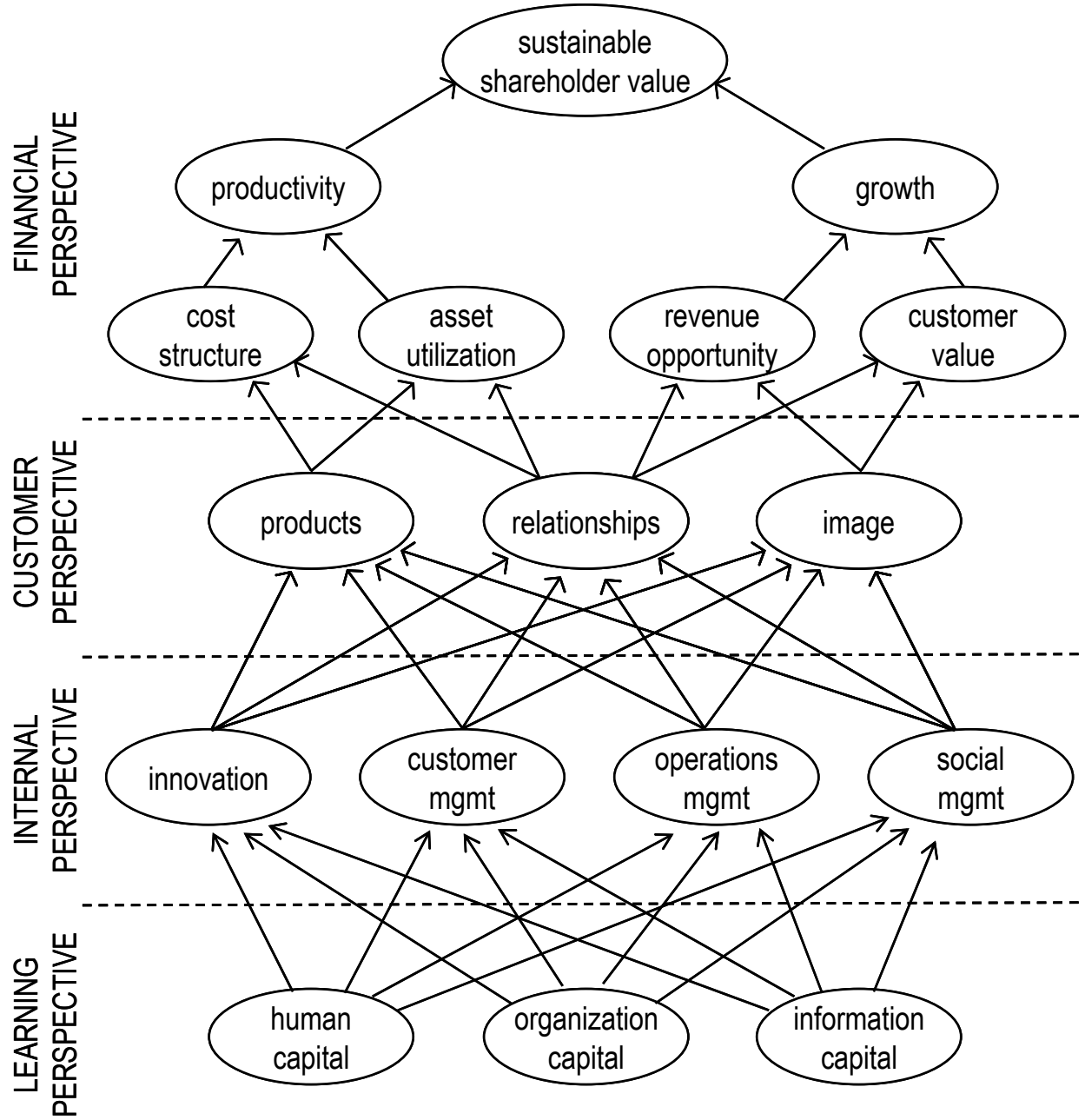
- Lag time – amount of time necessary before any response is observed
- Profile – the shape of the response curve, ie step change, sinusoidal, etc
- Peak – the maximum value reached by the response variable
- Time Constant – amount of time before a new steady condition is reached

ASSUMPTIONS IMPOSED BY A LINEAR MODEL

Linear models of causal relationships do not consider the separation of causes and their effects over time. The models assume that the causal forces create the expected effects, but the change takes place immediately. This implies that dynamic responses are not considered. Linear models assume that when a force is applied to an object, the object immediately responds to the force and displays the effect. This change is immediate and independent of time. Time based response rates and characteristics are assumed to be out of the linear model's scope.

Describing and Managing a Strategy

Principles of Strategy Mapping



Describing and Managing a Strategy

Principles of Strategy Mapping

MODELING THE ORGANIZATION'S FORMULA FOR SUCCESS

Strategy Mapping is a modeling approach that is part of the Balanced Scorecard framework. The principle of a Strategy Map is to visualize and communicate an organization's strategic objectives and the necessary ingredients for meeting those objectives.

A Strategy Map is a linear cause and effect model that is organized according to the four quadrants defined by the Balanced Scorecard.

MAJOR CATEGORIES OF INGREDIENTS

Learning and Growth components include items such as people, systems, data, corporate brand, knowledge and relationships that are deemed necessary for supporting the core essential Business Processes. The core Processes are identified as being critical for creating and delivering the service levels and product categories necessary to satisfy the needs of the targeted Customers. Customer requirements are addressed by the Processes. Customer behavior patterns, satisfaction levels, constraints and expectations are monitored and managed to ensure that the critical processes remain in control. The desired Financial results are identified that should be produced if the other three categories, ie, Customers, Processes and Learning & Growth are well defined and managed.

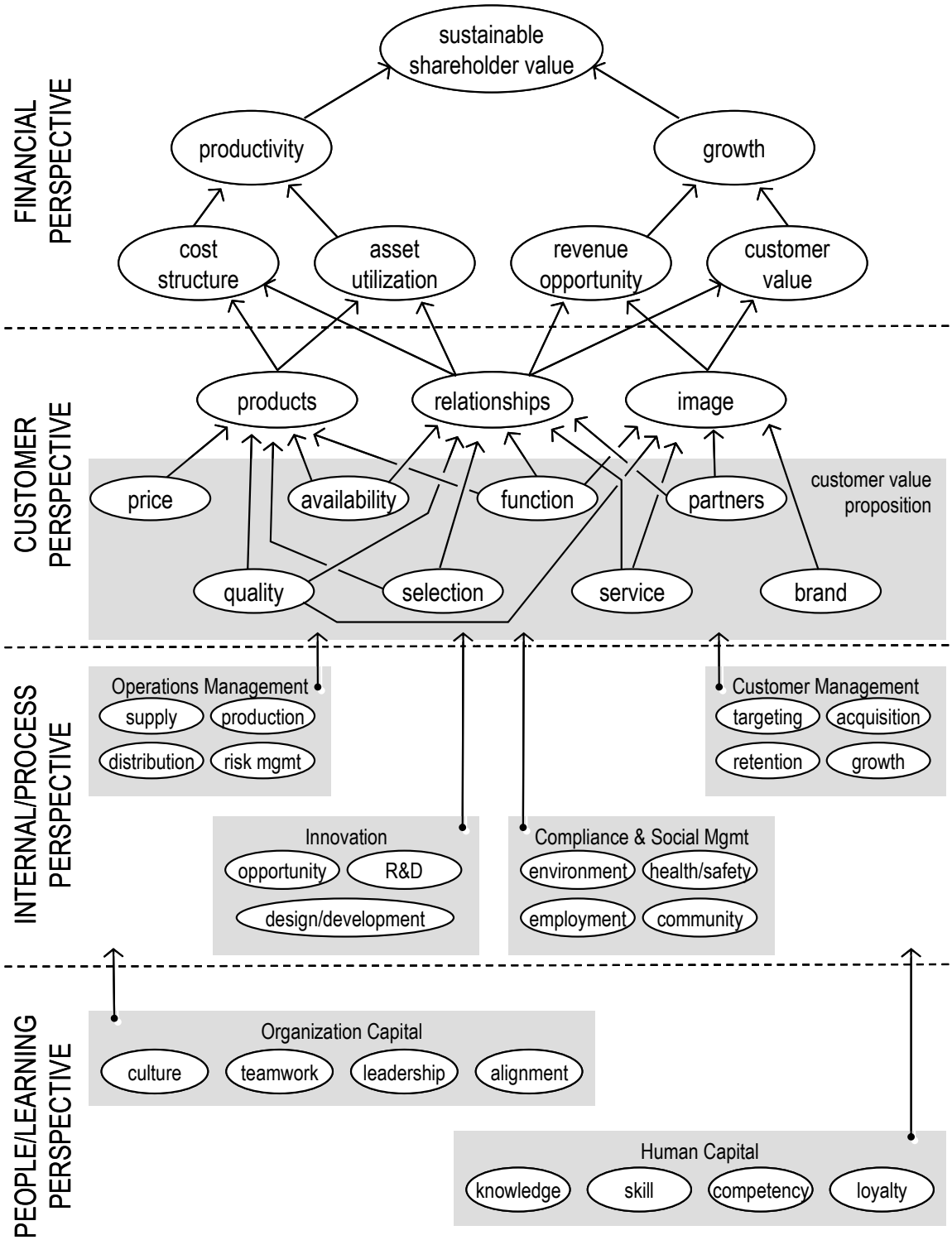
LOGICAL CONECTIONS BETWEEN INGREDIENTS

The logical connections between the Strategy Map ingredients are based on a linear model. Feedback mechanisms, many-to-many relationships, interactions across departments and dynamic responses are not considered within the scope of the linear mode.

Each logical connection from the Learning & Growth quadrant to the Process quadrant to the Customer quadrant is a single direction causal force. The effects are modeled as the outcomes produced in the main output category, defined in the Financial category.

Describing and Managing a Strategy

Strategy Map Example



Describing and Managing a Strategy

Strategy Map Example

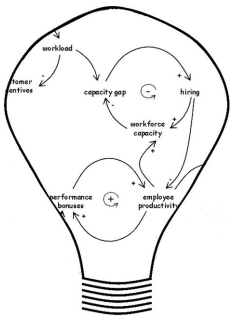
DESCRIPTION

A sample Strategy Map is shown on the facing page. In this example, the ultimate objective defined in the Financial layer is to deliver sustainable shareholder value. According to the model, this can be accomplished by meeting the two sub-goals of improved productivity and growth. More detailed goals have to be met in support these. Lower level goals related to cost structure, asset utilization, increasing revenue and increasing customer value have to also be met to achieve the ultimate financial objective.

To achieve the financial objective, the customer value proposition has to defined and managed. How customers perceive the organization in terms of product offerings, relationships and image are deemed critical and must be addressed according to the model.

The customer value proposition defines the outputs that the Internal Processes must deliver on. Processes based on Operations Management, Customer Management, Innovation and Compliance must de defined and managed to deliver the items that the Customers deem valuable.

The ability to execute the core processes is based on the Organization Capital and Human Capital that is available. Organization capital includes factors that define the capability of the organization to execute well. Human Capital defines the knowledge, skill, competency and loyalty aspects necessary to execute the required processes.



Module 4

Systems Thinking Applied to Strategic Management

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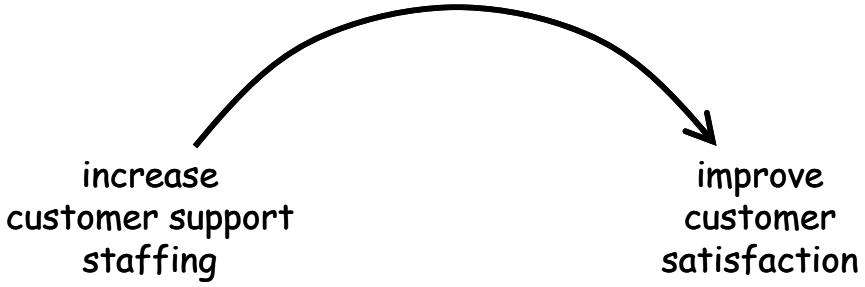
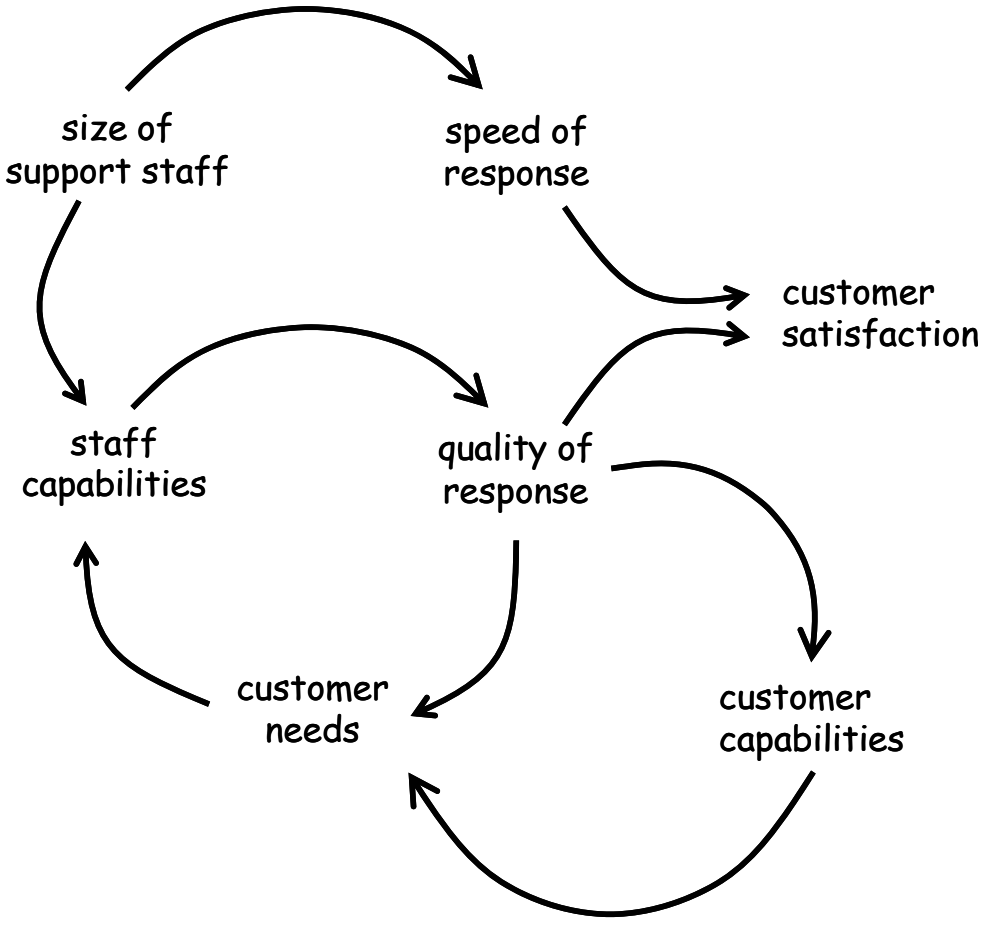
Defining Strategic Management as a System

Feedback Loops

Linear Thinking



Systems Thinking



Defining Strategic Management as a System

Feedback Loops

DESCRIPTION

Feedback loops exist within the Strategic Management System in terms of how its sub-systems interact with each other. They also exist between the Strategic Management System and the various external systems that it interacts with.

It has already been discussed that feedback loops drive non-linear, dynamic behavior. Systems cannot take actions without being affected by the results of those actions.

Feedback loops could have positive polarity and drive growth in the response. They could also have negative polarity and serve as a braking or slowing mechanism in response to the primary action.

Feedback loops are also affected by the fidelity of the systems. A causal force may affect another system component and their may be a significant time delay before a response is observed. This delay must be factored into the feedback loop in order to eventually understand the true response mechanisms influenced by the feedback loops.

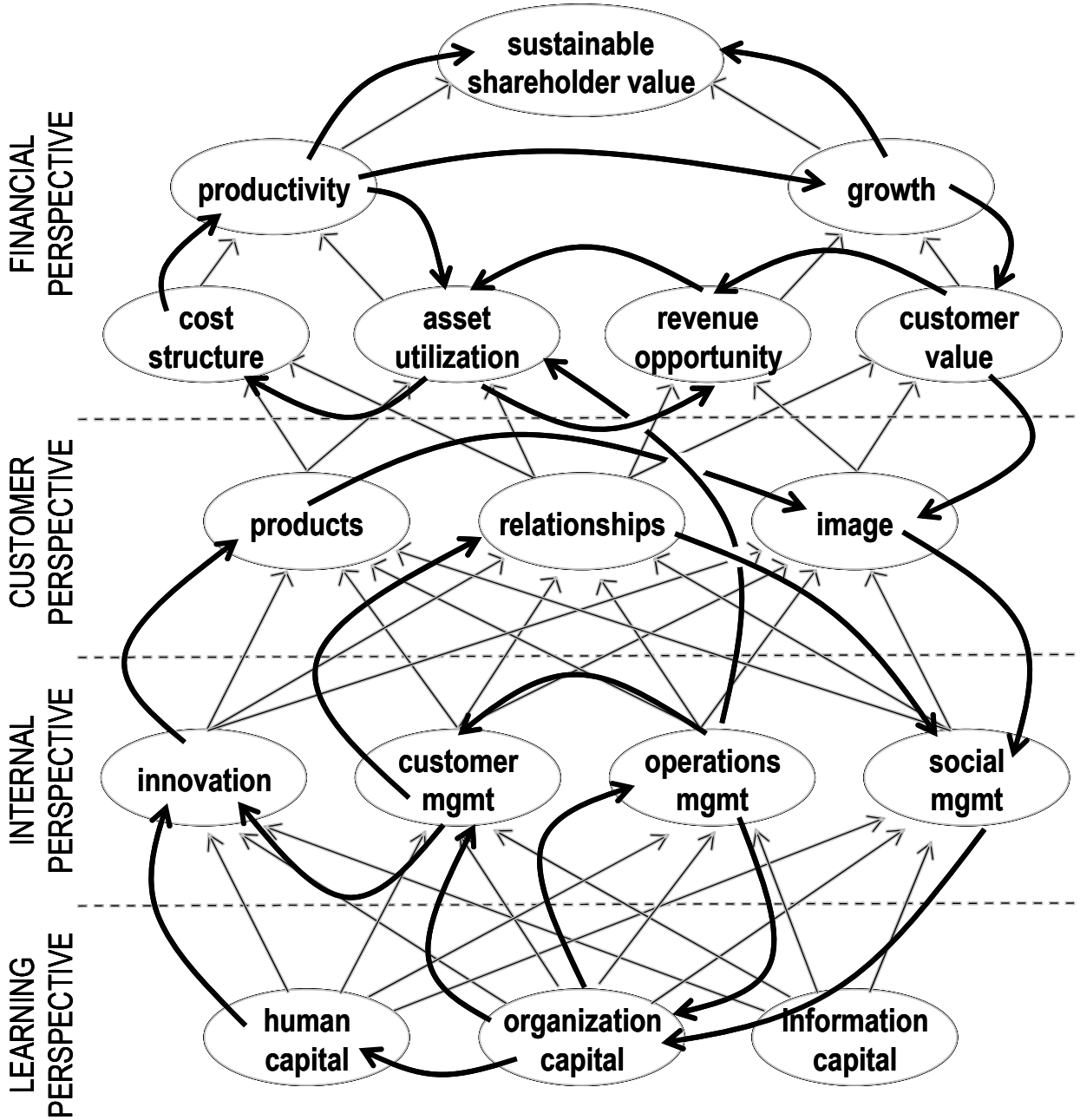
EXAMPLE

An example of a feedback loop and the delay concept in the Strategic Management System is described below.

Feedback loops exist within the Strategy system when various organizational elements are combined to create a desired outcome. For example, a strategic objective might be to improve the level of customer satisfaction. A theme to support this objective may be to provide additional sales and support staff to serve the customer. Linear thinking may conclude that the addition of additional support staff leads to happier customers. Systems thinking looks deeper and concludes that the capability and needs of the customer will influence the level and quality of support staff added. This means that the Customer System and the Staffing System influence each other. This feedback mechanism must be understood or undesirable results may occur. The two systems influence each other to balance the appropriate service levels.

System Modeling

Adding Feedback Loops to Strategy Maps



System Modeling

Adding Feedback Loops to Strategy Maps

RATIONALE AND IMPACT

Strategy Maps are created based on the framework provided from the Balanced Scorecard method for Strategic Management. The framework considers the cause and effect relationships that should be understood to create positive outcomes. It allows the modeling of "what needs to be done" and "what resources or assets need to be used" to create the outcomes that are consistent with the organization's vision and strategy. Working in reverse from the outcomes, the following chain of causality is identified.

- What level of financial outcomes do we want?
- What type of customers and needs do we want to serve that will produce the desired financial outcomes?
- What processes are needed to serve the targeted customer groups and meet their needs?
- What systems, people, knowledge and information are needed to execute those processes that will address the customers that will lead to the desired returns?

This causal chain is linear and does not specify the dynamics nature of timing, durations and delays. The chain implies that everything takes place instantaneously. The linear approach works reasonably well if it remains at the Strategy Functional level of Strategic Management. At that level, timing is not as critical and feedback may be less important. However as organizations apply the model to the lower levels such as Planning, Scheduling and Execution, the need to understand feedback loops and dynamics is more important. Strategy Maps can benefit by considering feedback loops to allow modelers to identify those forces in the organization that will resist the linear causal chain and inhibit the desired results. Feedback loops permit us to determine the forces that are contrary to our objectives. If those forces are identified, attention can be applied to mitigate the resisting forces and improve the chance of success.

EXAMPLE

A critical component of the Strategy Map is the Process Layer. The processes necessary to serve the targeted customers are identified. However, a key force that may work to resist the key processes may come from a low process capability. Low process capability will work in a negative manner to reduce the efforts of the desired process. By identifying and measuring process capability as a factor that influences processes, management can take corrective action to increase the capability to mitigate this force. Without this insight, management may execute a process and never achieve the desired outcomes without knowing what invisible force was holding them back.

