SIXTEENTH EDITION | Marakas O'Brien

Introduction to **INFORMATION SYSTEMS**

Chapter 2

- **Developing Business/IT Strategies**

Planning Fundamentals

- Information technology has created a seismic shift in the way companies do business

  – Just knowing the importance and structure of e-business is not enough

  – You must create and implement an action plan that allows you to make the transition from an old business design to a new e-business design

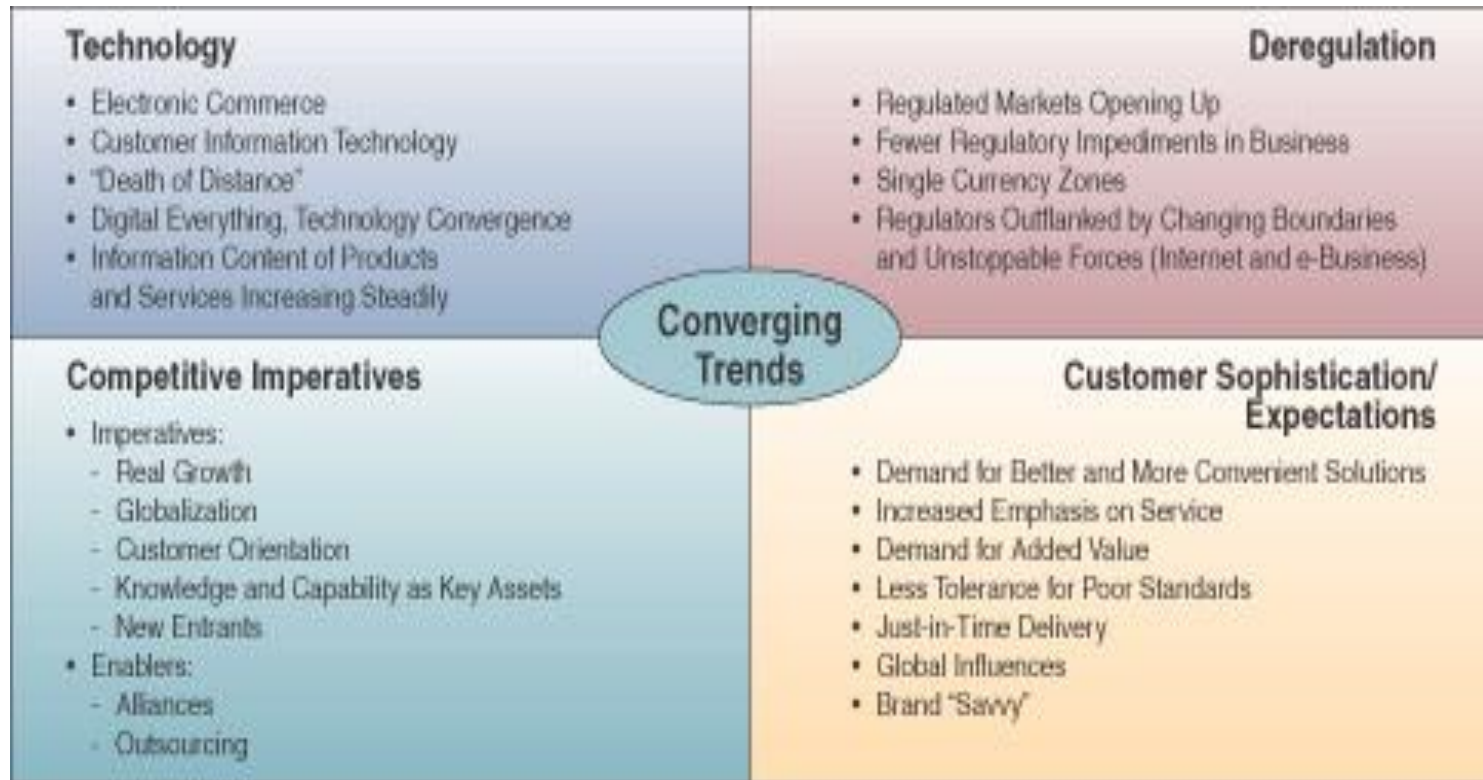# Components of Organizational Planning
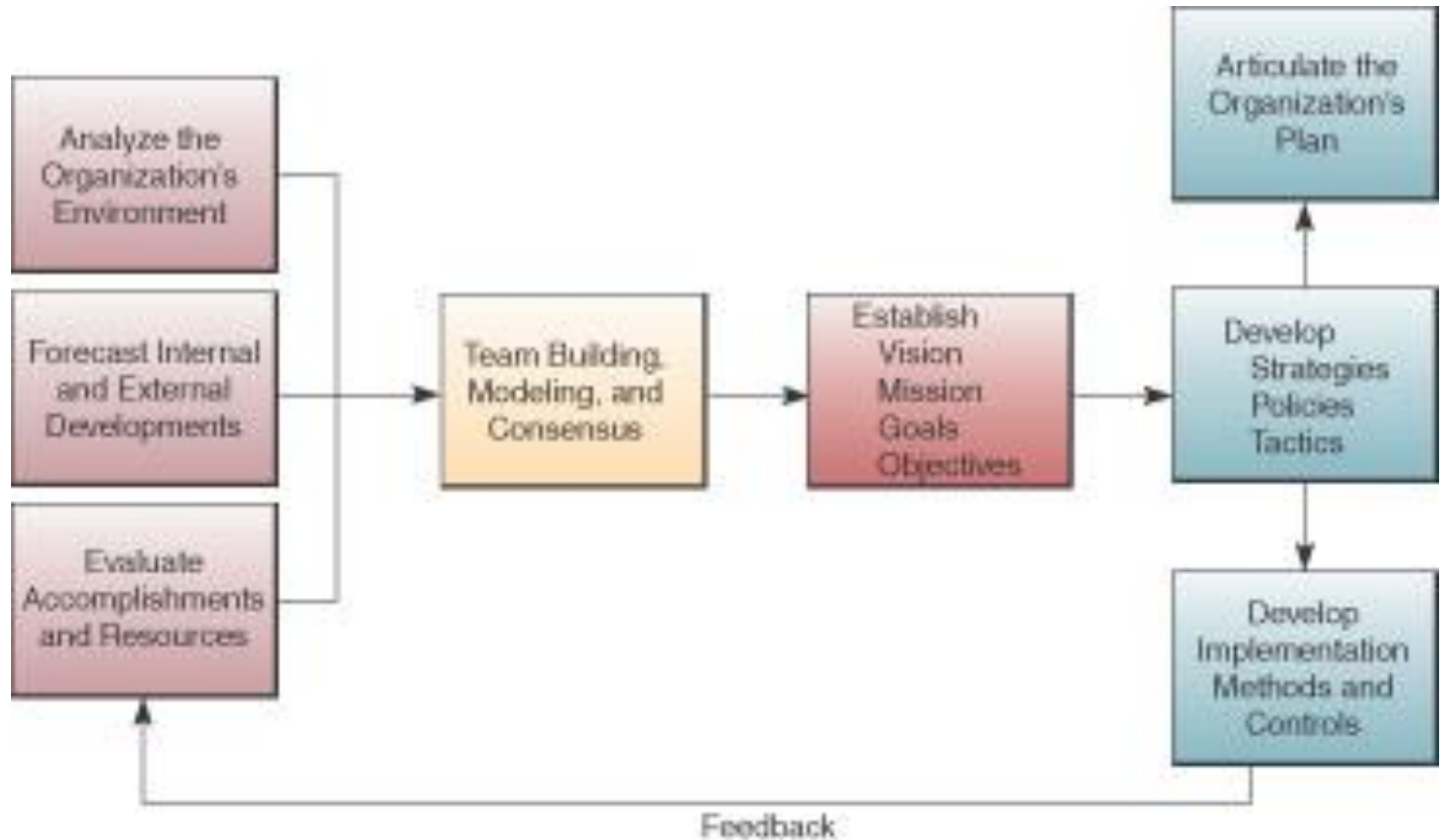
Planning

- Strategic Planning
  - Deals with the development of an organization's mission, goals, strategies, and policies
  - Begins with strategic visioning questions

- Tactical Planning
  - The setting of objectives and the development of procedures, rules, schedules, and budgets

- Operational Planning
  - Done on a short-term basis to implement and control day-to-day operations

The Scenario Approach

- Gaining in popularity as a less formal, but more realistic, strategic planning methodology
  - Teams of managers and planners participate in microworld or virtual world exercises
  - Business scenarios are created and evaluated
  - Alternative scenarios are then created

Trends that Affect Strategic Planning

Technology
- Electronic Commerce
- Customer Information Technology
- "Death of Distance"
- Digital Everything, Technology Convergence
- Information Content of Products and Services Increasing Steadily

Deregulation
- Regulated Markets Opening Up
- Fewer Regulatory Impediments in Business
- Single Currency Zones
- Regulators Outflanked by Changing Boundaries and Unstoppable Forces (Internet and e-Business)

Converging Trends

Competitive Imperatives
- Imperatives:
  - Real Growth
  - Globalization
  - Customer Orientation
  - Knowledge and Capability as Key Assets
  - New Entrants
- Enablers:
  - Alliances
  - Outsourcing

Customer Sophistication/ Expectations
- Demand for Better and More Convenient Solutions
- Increased Emphasis on Service
- Demand for Added Value
- Less Tolerance for Poor Standards
- Just-in-Time Delivery
- Global Influences
- Brand "Savvy"

Planning for Competitive Advantage

- Strategic business/IT planning
  - Involves evaluating the potential benefits and risks of using IT-based strategies and technologies for competitive advantage

- The following models can help generate ideas for the strategic use of IT to support initiatives
  - Competitive forces
  - Competitive strategies
  - Value chain

Competitive forces

The Five Forces That Shape Industry Competition
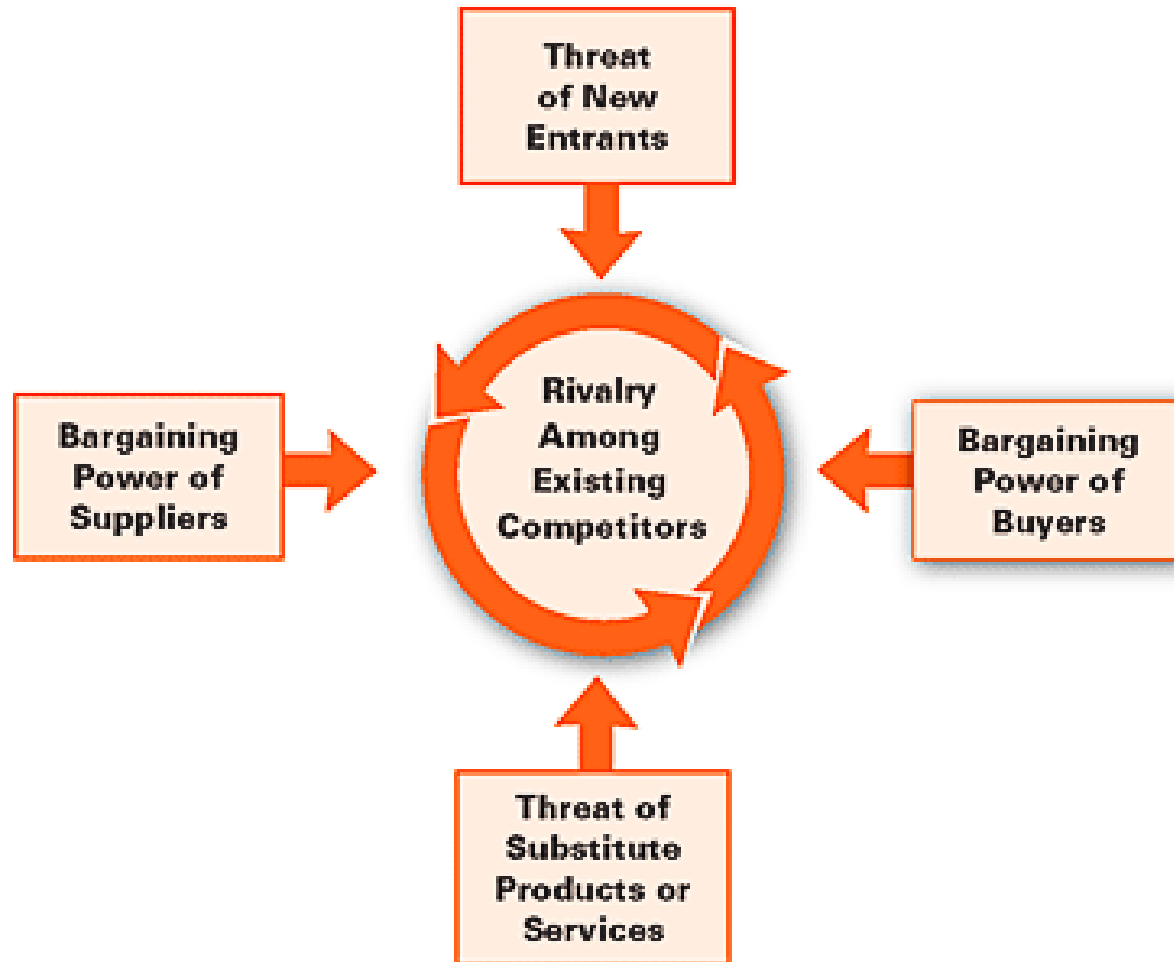
Porter's Generic Strategies

Target Scope	Competitive Advantage	
	Low Cost	Product Uniqueness
Broad (Industry Wide)	Cost Leadership Strategy	Differentiation Strategy
Narrow (Market Segment)	Focus Strategy (low cost)	Focus Strategy (differentiation

SWOT Analysis

- SWOT stands for

  - **Strengths**: a company's core competencies and resources

  - **Weaknesses**: areas of substandard business performance compared to others

  - **Opportunities**: potential for new business markets or innovative breakthroughs that might expand current markets

  - **Threats**: anything that has the potential for business and market losses

Business Models and Planning

- Business model answers vital questions about the fundamental components of a business

  – Who are our customers?

  – What do our customers value?

  – How much will it cost to deliver that value?

  – How do we make money in this business?

Questions for all Business Models

Customer value	Are we offering something distinctive or at a lower cost than our competitors?
Scope	To which customers is this value being offered?
	What range of products/services offered embody this value?
Pricing	How do we price the value?

Questions for all Business Models

Revenue source

Where do the dollars come from?
Who pays for what value and when?
What are the margins in each market, and what drives them?

What drives value in each source?

Connected activities

What do we have to do to offer this value and when?

How connected are these activities?

Questions for all Business Models

Implementation   What structure, systems, people, and environment do we need to carry out these activities?

What is the fit between them?

Sustainability   What is it about the firm that makes it difficult for other to imitate it?

How do we keep making money?

How do we sustain our competitive advantage?

Questions for all Business Models

Capabilities

What are our capabilities and capabilities gaps?

How do we fill these gaps?

Is there something distinctive about these capabilities that lets us offer the value better than other firms?

Is this capability hard to imitate?

What are the sources of these capabilities?

Questions Specific to E-Business Models

Customer Value	What is it about Internet technologies that allows us to offer customers something distinctive?
	Can Internet technologies help us to solve a new set of problems for customers?
Scope	What is the scope of customers that Internet technologies enable us to reach?
	Does the Internet alter the product or service mix that embodies the firm's products?

Questions Specific to E-Business Models

Pricing	How does the Internet make pricing different?
Revenue source	Are revenue sources different with the Internet? What is new?
Connected activities	How many new activities must be performed as a result of the Internet? How much better can Internet technologies help us perform existing activities?

Questions Specific to E-Business Models

|	
Implementation	How do Internet technologies affect the strategy, structure, systems, people, and environment of the firm?
Capabilities	What new capabilities do we need?
	What is the impact of Internet technologies on existing capabilities?
Sustainability	Do Internet technologies make sustainability easier or more difficult?
	How can the firm take advantage of it?

Business Models as Planning Tools

- A business model forces rigorously and systematic thinking about the value and viability of business initiatives

  - The strategic planning process is then used to develop unique business strategies that capitalize on a business model

  - The goal is to gain a competitive advantage in an industry or marketplace

The Business/IT Planning Process
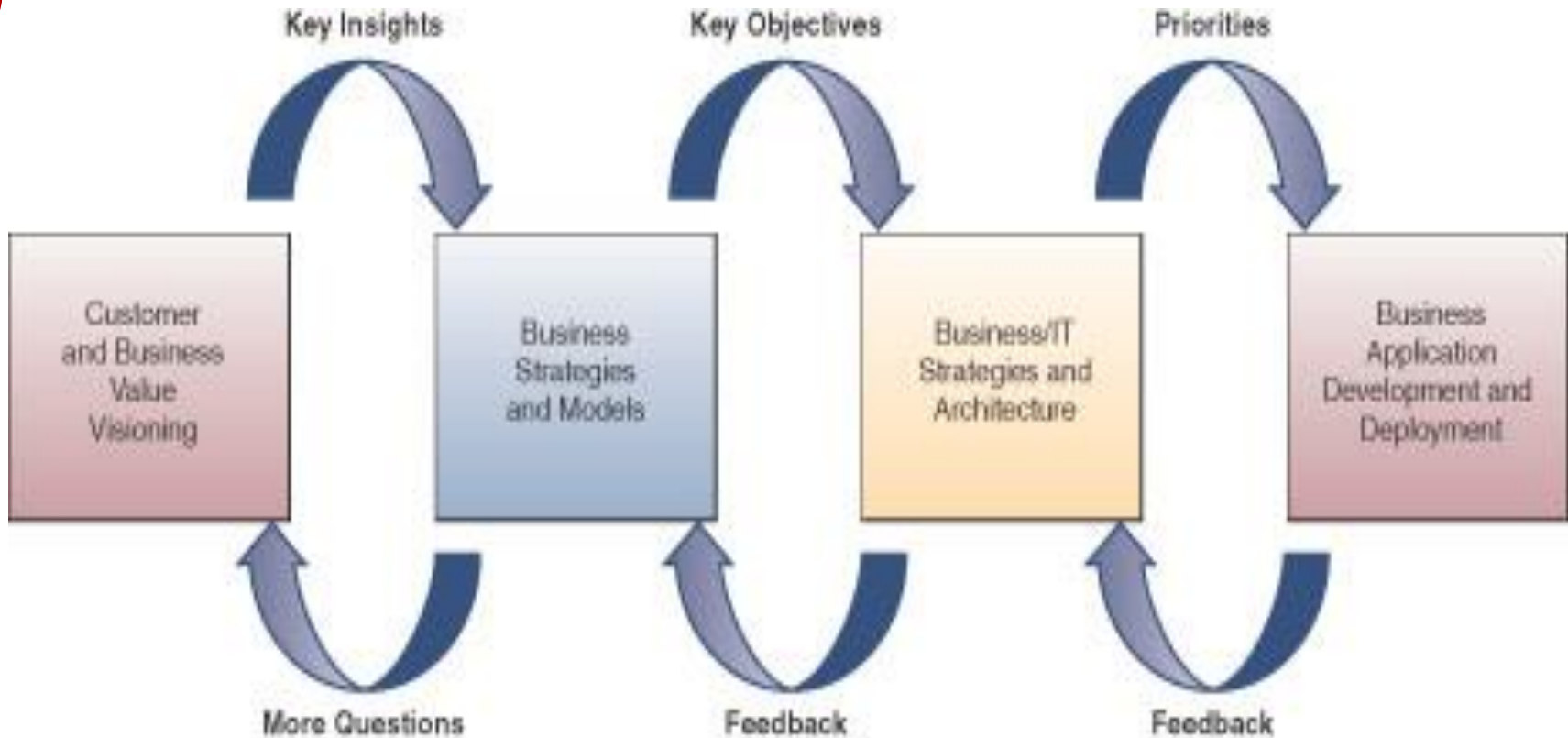
The Business/IT Planning Process

- The business/IT planning process has three major components

  - Strategic development

  - Resource management

  - Technology architecture

Information Technology Architecture

- The IT architecture is a conceptual design that includes these major components

  – Technology platform

  – Data resources

  – Application architecture

  – IT organization

Balanced Scorecard

- The balanced scorecard measures a company's activities in terms of vision and strategies

- The system has four processes

  - Translating vision into operational goals

  - Communicating the vision and linking it to individual performance

  - Business planning

 - Feedback/learning and strategy adjustment

Balanced Scorecard

- The business perspectives a scorecard measures

  - **Financial**: reflects financial performance, such as cash flow or ROI

  - **Customer**: measures having a direct impact on customers, such as time to process phone calls

  - **Business process**: reflects the performance of key business processes, such as time spent prospecting or process costs

  - **Learning/growth**: the company's learning curve, such as how many hours are spent training staff

Identifying Business/IT Strategies

- The most valuable Internet applications allow companies to

  - Transcend communication barriers

  - Establish connections that enhance productivity

  - Stimulate innovative development

  - Improve customer relations

Strategic Positioning Matrix
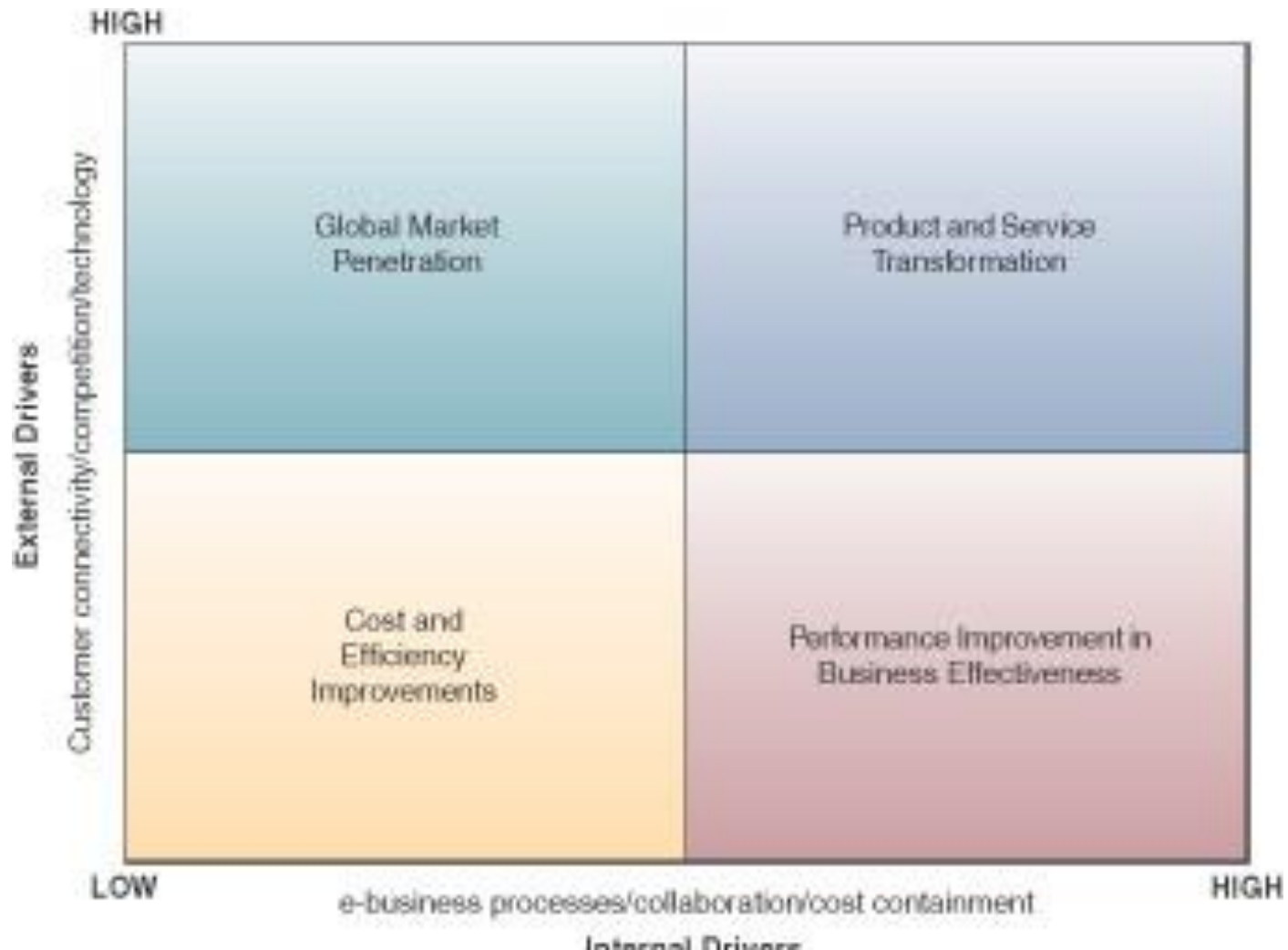
Strategic Matrix

- Cost and Efficiency Improvements

  - Use the Internet as a fast, low-cost way to communicate and interact with others

  - Use of e-mail, chat systems, discussion groups, and company websites

- Performance Improvement in Effectiveness

  - Major improvements in business effectiveness recommended

  - Increase use of Internet-based technologies, such as intranets and extranets

Strategic Strategies

- Global Market Penetration

  – Capitalize on a high degree of customer and competitor connectivity and use of IT

  – Use e-commerce websites with value-added information services and extensive online customer support

- Product and Service Transformation

  – Develop and deploy new Internet-based products and services that strategically reposition it in the marketplace

E-Business Strategy Examples

- Market Creator: be among the first to market and remain ahead of the competition by continuously innovating

- Channel Reconfiguration: use the Internet as a new channel to directly access customers, make sales, and fulfill orders

- Transaction Intermediary: Use the Internet to process purchases

E-Business Strategy Examples

- Infomediary: use the Internet to reduce the search cost; offer a unified process for collecting the information needed to make a large purchase

- Self-Service Innovator: provide a comprehensive suite of services that the customer's employees can use directly

- Supply Chain Innovator: use the Internet to streamline supply chain interactions

- Channel Mastery: use the Internet as a sales and service channel

Business Application Planning Process

Comparing Planning Approaches

Conventional IT Planning	Avnet Marshall's e-Business Planning
• Strategic alignment: IT strategy tracks specified enterprise strategy	• Strategic improvisation: IT strategy and enterprise business strategy coadaptively unfold based on the clear guidance of a focus on customer value
• CEO endorses IT vision shaped through CIO	• CEO proactively shapes IT vision jointly with CIO as part of e-business strategy
• IT application development projects functionally organized as technological solutions to business issues	• IT application development projects co-located with e-business initiatives to form centers of IT-intensive business expertise
• Phased application development based on learning from pilot projects	• Perpetual application development based on continuous learning from rapid deployment with incomplete functionality and end user involvement

# E-Business Architecture Planning
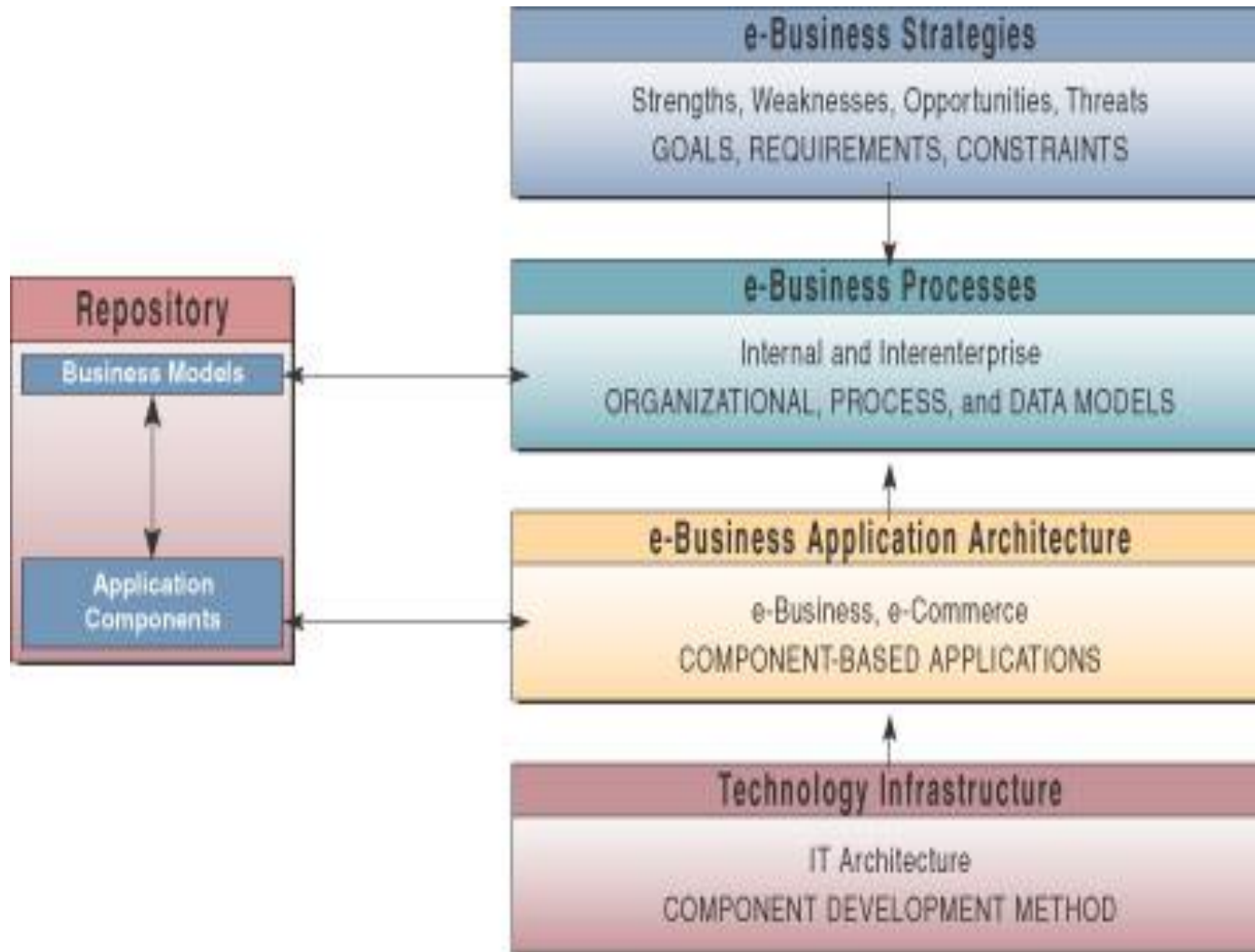
Implementation

- Many companies plan changes very well

  – Few manage to convert a plan into action

  – This is true even if senior management consistently identifies e-business as an
  area of great opportunity

Implementing Information Technology

- Many businesses have undergone multiple major reorganization since the early 1980s
  - Business process reengineering
  - Installation and upgrades of an ERP system
  - Upgrading legacy systems to be Y2K compliant
  - Creating shared service centers
  - Just-in-time manufacturing
  - Sales force automation
  - Contract manufacturing
  - The introduction of euro currency
- E-business is the latest organizational change

Impact and Scope of Implementing IT
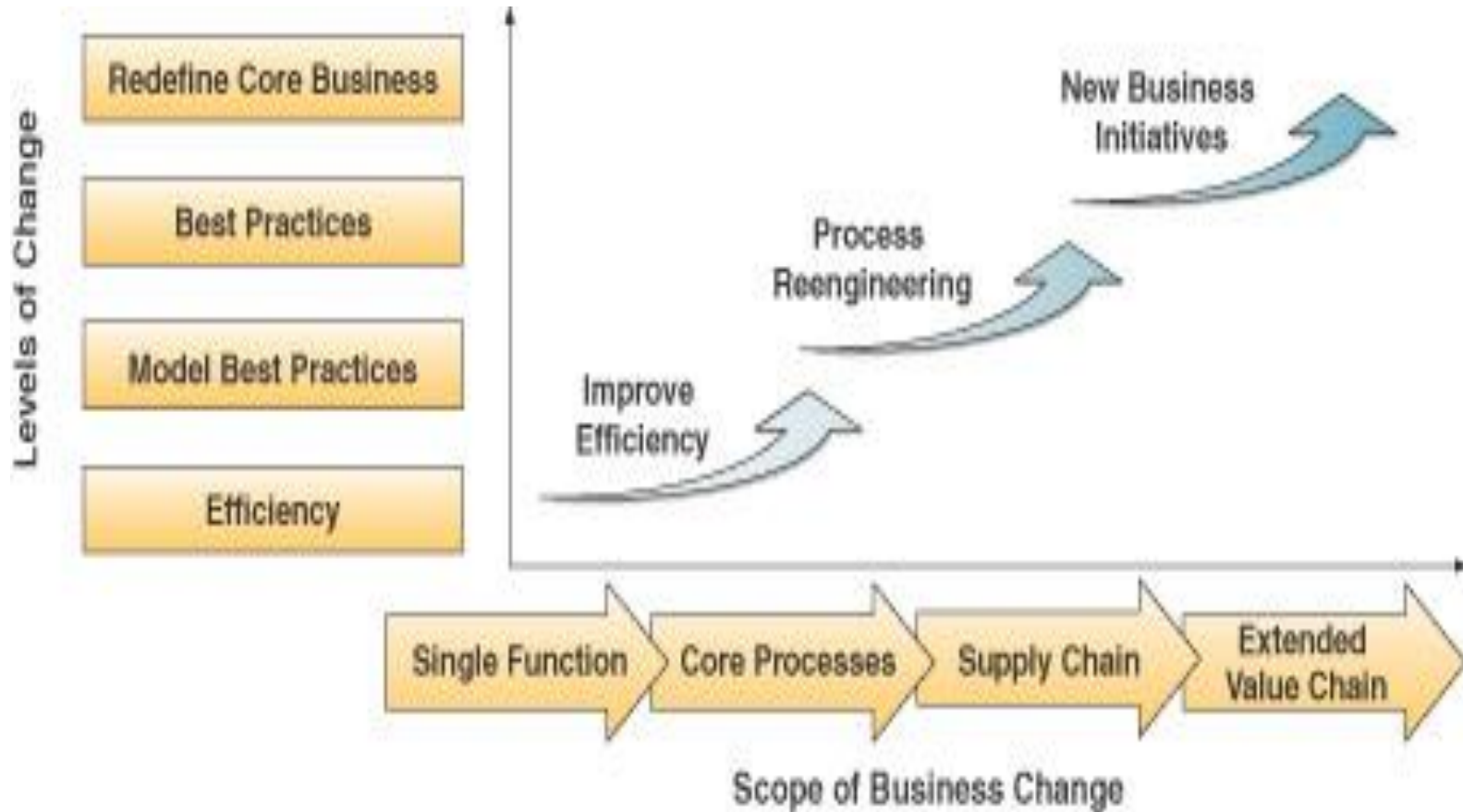
Intranet Enterprise Portal Challenges

- Security, security, security

- Defining the scope and purpose of the portal

- Finding the time and the money

- Ensuring consistent data quality

- Getting employees to use it

- Organizing the data

- Finding technical expertise

- Integrating the pieces

- Making it easy to use

- Providing all users with access

Enterprise Resource Planning Challenges

- Getting end user buy-in

- Scheduling/planning

- Integrating legacy systems/data

- Getting management buy-in

- Multiple/international sites and partners

- Changing culture and mind-sets

- IT training

- Getting, keeping IT staff

- Moving to a new platform

- Performance/system upgrades
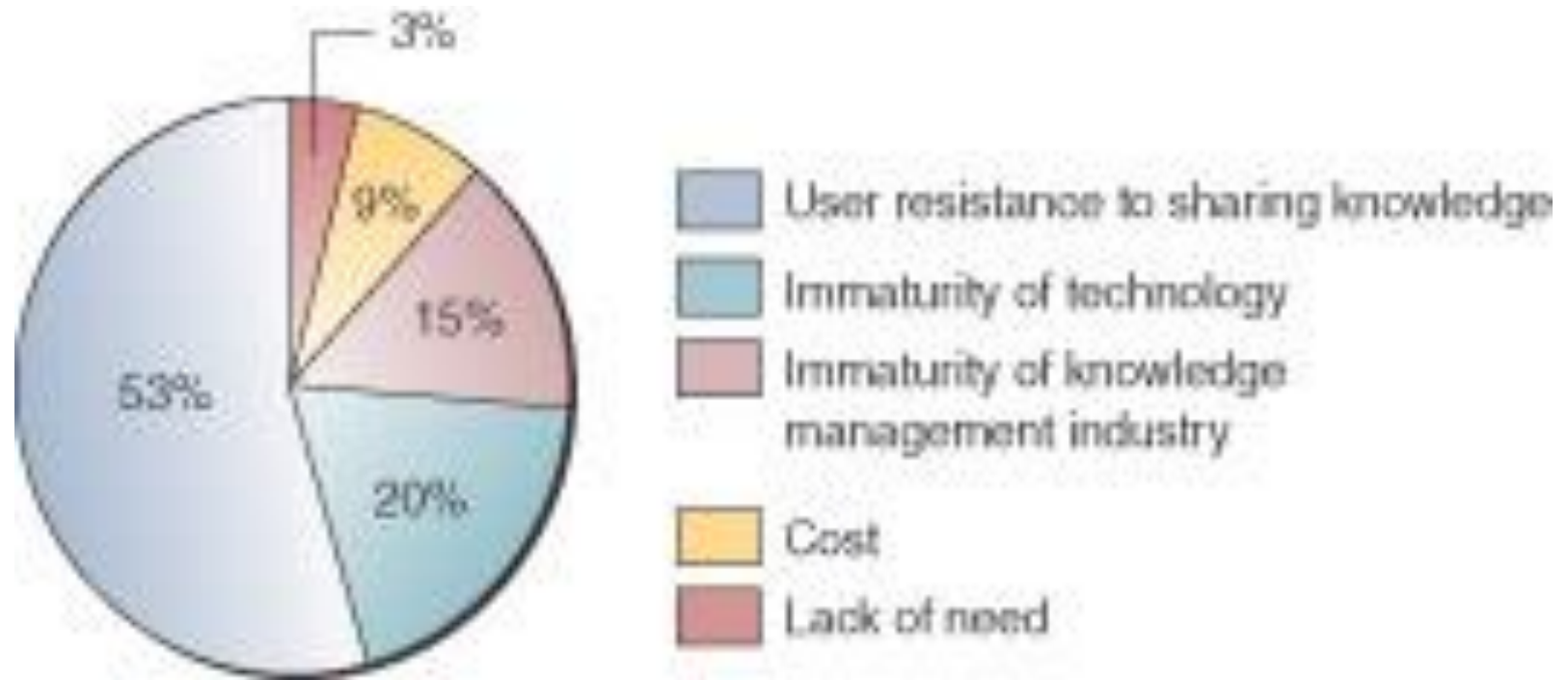
End User Resistance and Involvement

- Any way of doing things generates some resistance from the people affected

- CRM projects have a history of failure

  - Up to 75 percent of CRM projects fail to meet their objectives

  - This is often due to sales force automation problems and unaddressed cultural issues

  - Sales staffs are often resistant to, or fearful of, using CRM systems

Keys to Solving End User Resistance

- Keys to solving end user resistance problems

  - Education and training

  - End-user involvement in organizational changes and system development

  - Requiring involvement and commitment of top management and all stakeholders

- Systems that inconvenience or frustrate users cannot be effective, no matter how technically elegant or efficient

Obstacles to KM Systems

- User resistance to sharing knowledge — 53%
- Immaturity of technology — 20%
- Immaturity of knowledge management industry — 15%
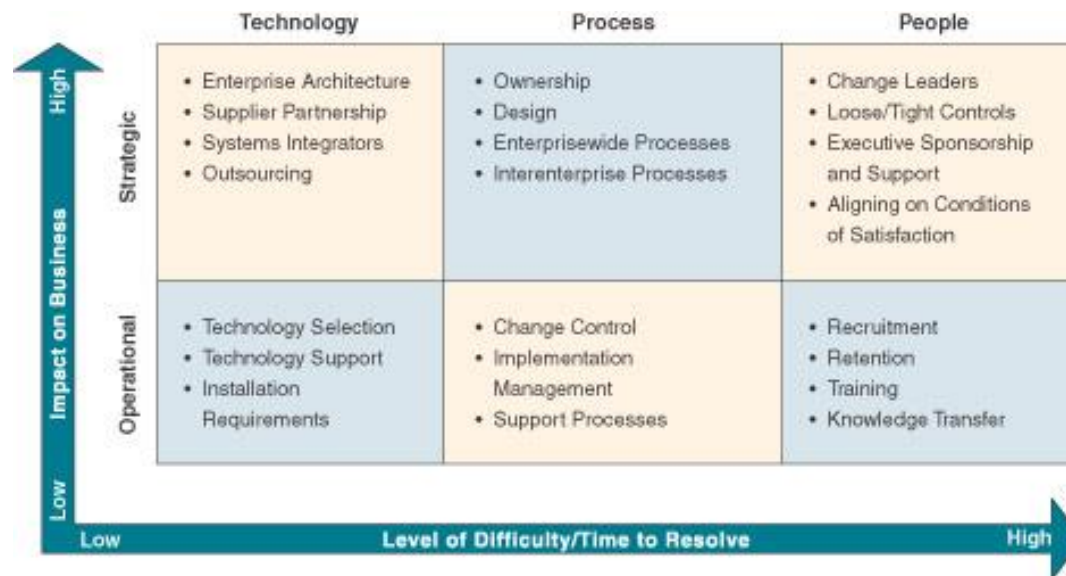- Cost — 9%
- Lack of need — 3%

Change Management

People factors have the highest level
of difficulty and the longest time to resolve
of any dimension of change management

Key Dimensions of Change Management

	Technology	Process	People
Strategic (High Impact on Business)	• Enterprise Architecture • Supplier Partnership • Systems Integrators • Outsourcing	• Ownership • Design • Enterprisewide Processes • Interenterprise Processes	• Change Leaders • Loose/Tight Controls • Executive Sponsorship and Support • Aligning on Conditions of Satisfaction
Operational (Low Impact on Business)	• Technology Selection • Technology Support • Installation Requirements	• Change Control • Implementation Management • Support Processes	• Recruitment • Retention • Training • Knowledge Transfer

Low ← Level of Difficulty/Time to Resolve → High

1-44

Change Management

- Implementing a new e-business application may involve

  – Developing an action plan

  – Assigning managers as change sponsors

  – Developing employee change teams

  – Encouraging open communications and feedback about organizational changes

Change Management

- Key tactics recommended by change experts

  - Involve as many people as possible in e-business planning and application development

  - Make constant change an expected part of the culture

  - Tell everyone as much as possible about everything, as often as possible, in person

  - Make liberal use of financial incentives and recognition

  - Work within the company culture, not around it

A Change Management Process