

Module-IV

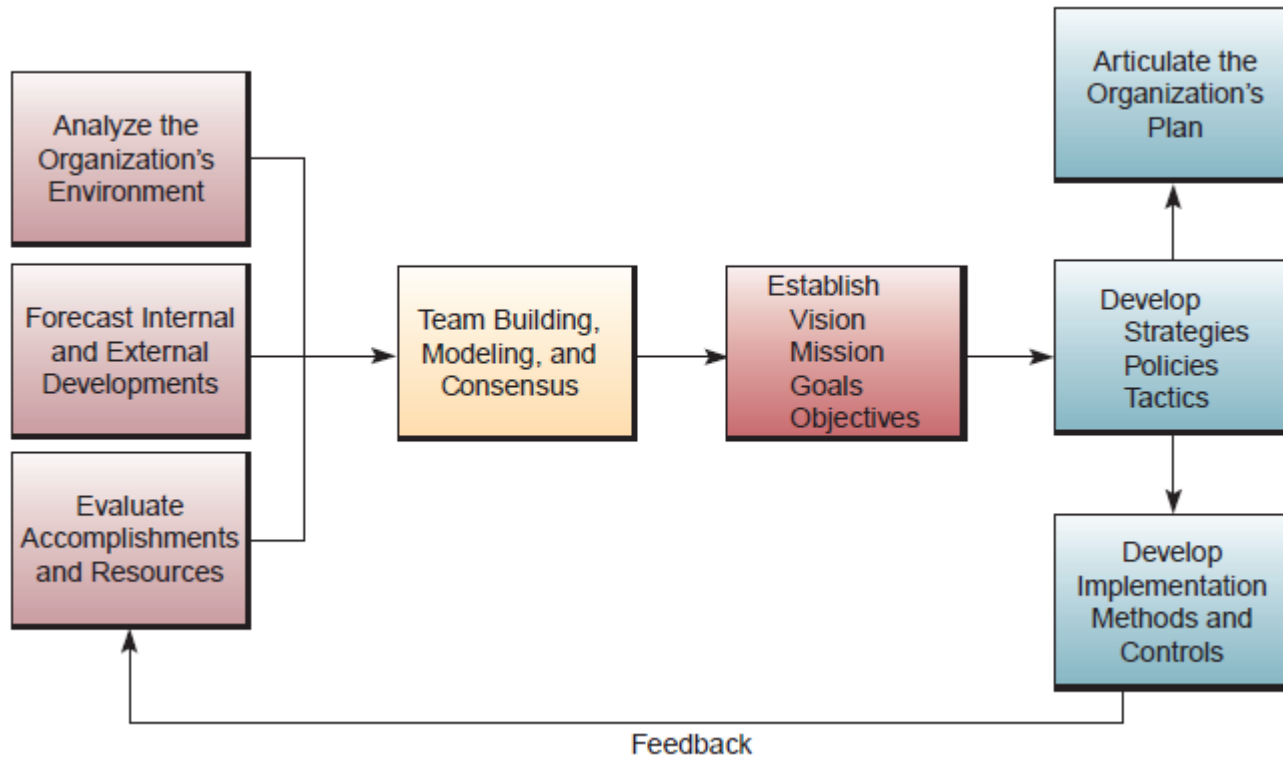
DEVELOPMENT PROCESSES

1. Developing Business/IT Strategies
2. Developing Business/IT Solutions

Developing Business/IT Strategies

Planning Fundamentals

- Organisational Planning

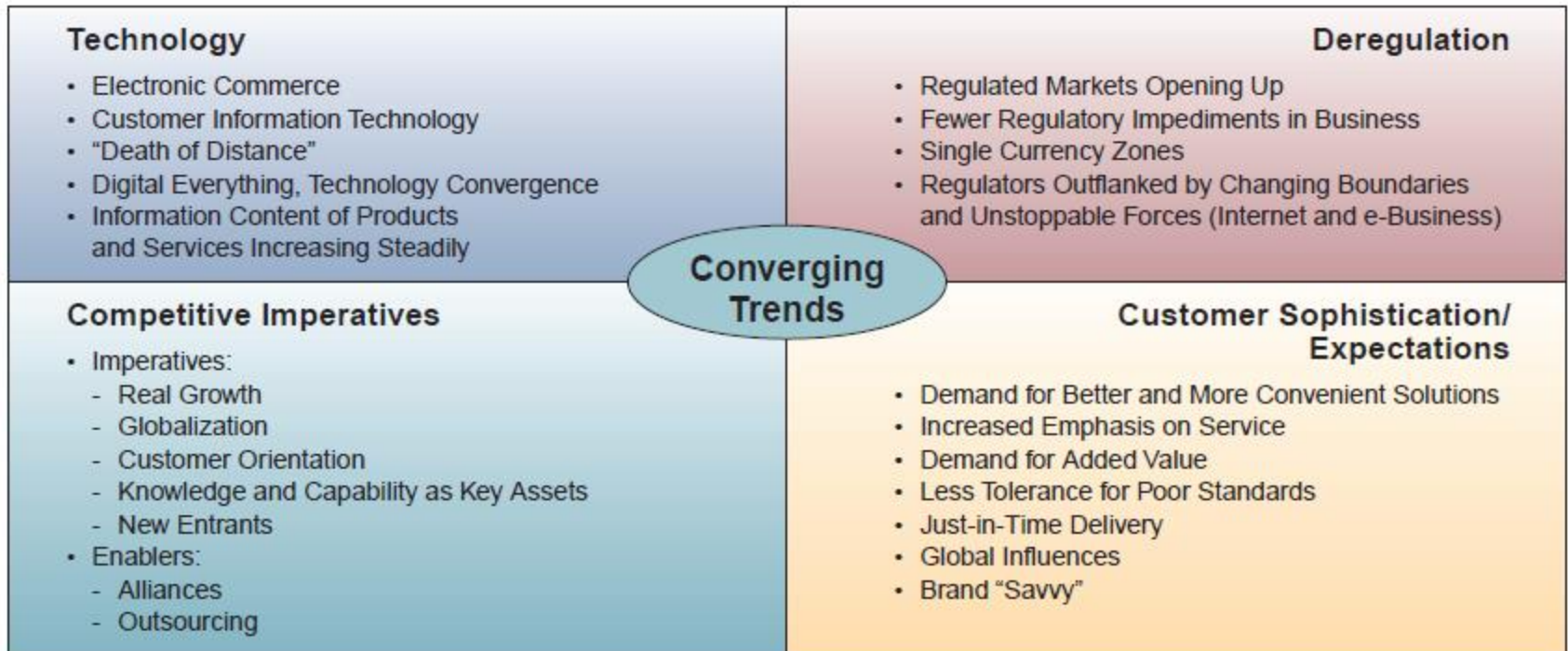


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- Strategic Planning
 - Tactical Planning
 - Operational Planning

Strategic Business Visioning	
• Understanding the Customer	Who are our customers? How are our customers' priorities shifting? Who should be our target customers? How will an e-business help reach our target customer segments?
• Customer Value	How can we add value for the customer with e-business services? How can we become the customer's first choice?
• Competition	Who are our real competitors? What is our toughest competitor's business model? What are they doing in e-business and e-commerce? Are our competitors potential partners, suppliers, or customers in an e-business venture?
• Value Chain	How would we design a value chain if we were just starting an e-business? Who would be our supply chain partners? What roles should we play: e-commerce Web site, B2C portal, B2B marketplace, or partner in an e-commerce alliance?

The Scenario Approach



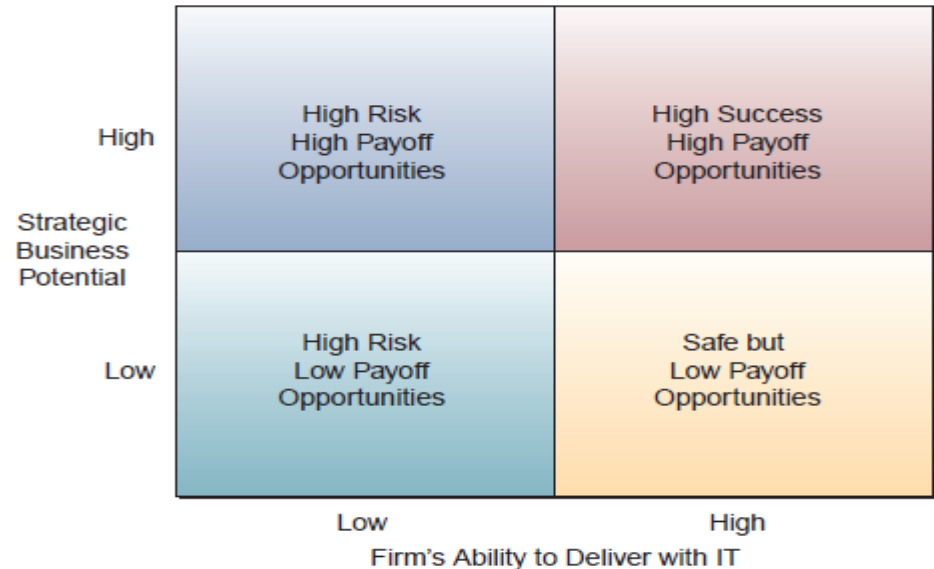
Key Factors, that could help guide business/IT planning.

Risk Assessment & Mitigation

- Business Operations Risk
- Program Risk
- Business Interruption Risk
- Market Risk

Planning for Competitive Advantage

- SWOT Analysis
 - Strengths
 - Weaknesses
 - Opportunities
 - Threats



Strengths	Weaknesses	Opportunities	Threats
Market reputation	Shortage of trained consultants at the operating level	Well-established market niche	Large consultancies operating at a minor market level
Partner-level expertise in HRM	Lack of ability to manage multidisciplinary assignments	New market opportunities for consulting in areas other than HRM	Many small consultancies looking to invade the marketplace

Business Models & Planning

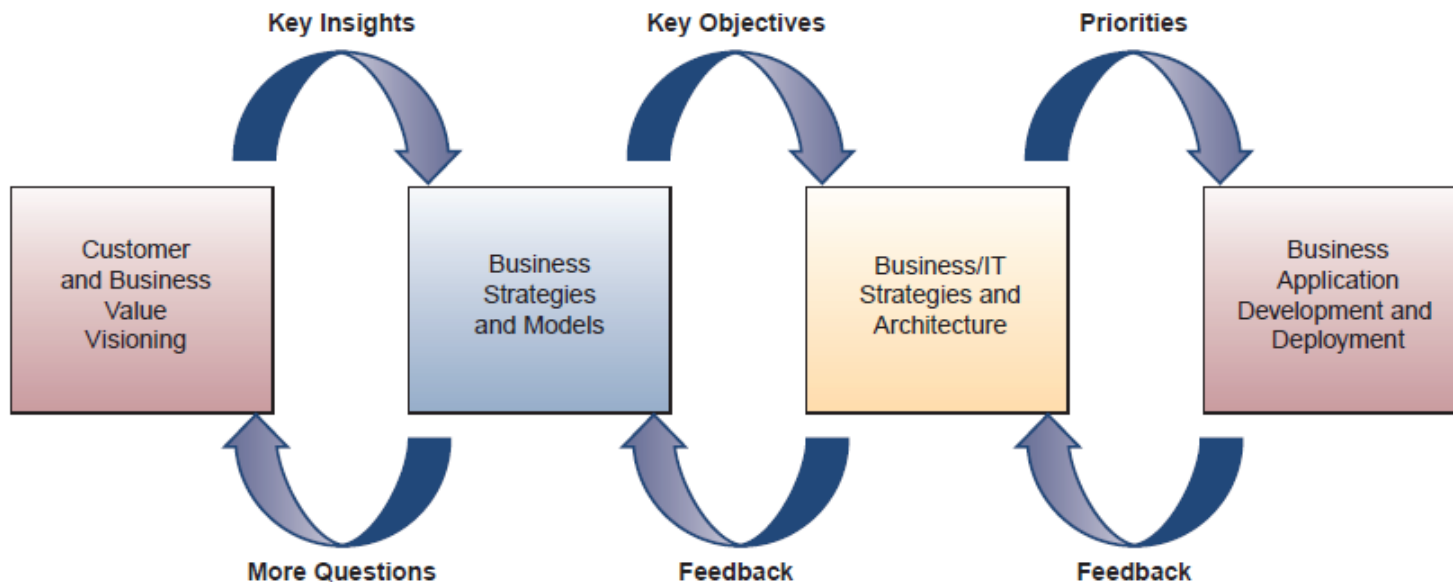
Component of Business Model	Questions for All Business Models
Customer value	Is the firm offering its customers something distinctive or at a lower cost than its competitors?
Scope	To which customers (demographic and geographic) is the firm offering this value? What is the range of products/services offered that embody this value?
Pricing	How does the firm price the value?
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 set of activities does the firm have to perform to offer this value and when? How connected (in cross section and time) are these activities?
Implementation	What organizational structure, systems, people, and environment does the firm need to carry out these activities? What is the fit between them?
Capabilities	What are the firm's capabilities and capabilities gaps that need to be filled? How does a firm fill these capabilities gaps? Is there something distinctive about these capabilities that allows the firm to offer the value better than other firms and that makes them difficult to imitate? What are the sources of these capabilities?
Sustainability	What is it about the firm that makes it difficult for other firms to imitate it? How does the firm keep making money? How does the firm sustain its competitive advantage?

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Component of Business Model	Questions Specific to e-Business Models
Customer value	What is it about Internet technologies that allows your firm to offer its customers something distinctive? Can Internet technologies allow you to solve a new set of problems for customers?
Scope	What is the scope of customers that Internet technologies enable your firm to reach? Does the Internet alter the product or service mix that embodies the firm's products?
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 you to perform existing activities?
Implementation	How do Internet technologies affect the strategy, structure, systems, people, and environment of your firm?
Capabilities	What new capabilities do you need? What is the impact of Internet technologies on existing capabilities?
Sustainability	Do Internet technologies make sustainability easier or more difficult? How can your firm take advantage of it?

Business/IT Architecture Planning

- Strategic Development
- Resource Management
- Technology Architecture



Information Technology Architecture

- Technology Platform
- Data Resources
- Applications Architecture
- IT Organization

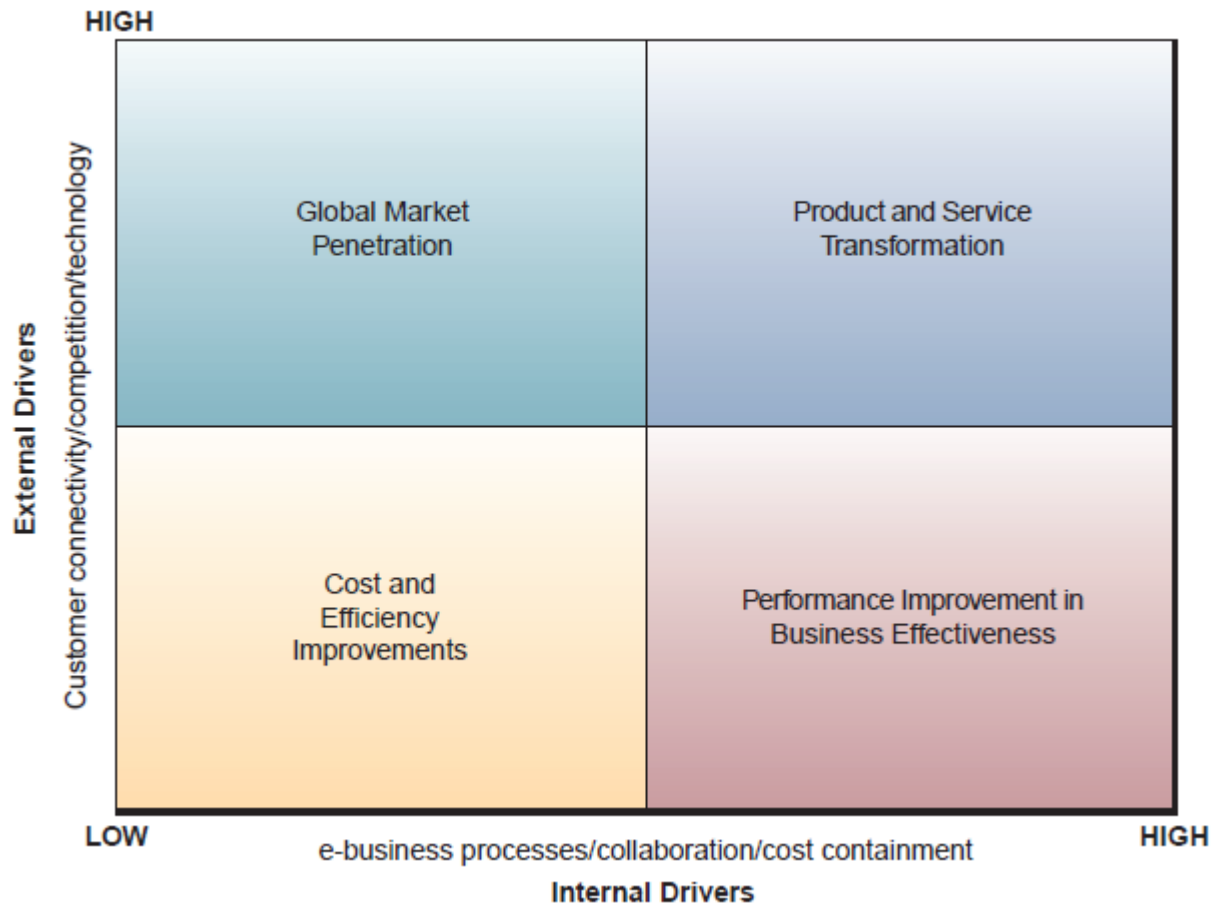
Balanced Scorecard

- Objectives
 - Translating the vision into operational goals
 - Communicating the vision and linking it to individual performance
 - Business Planning
 - Feedback

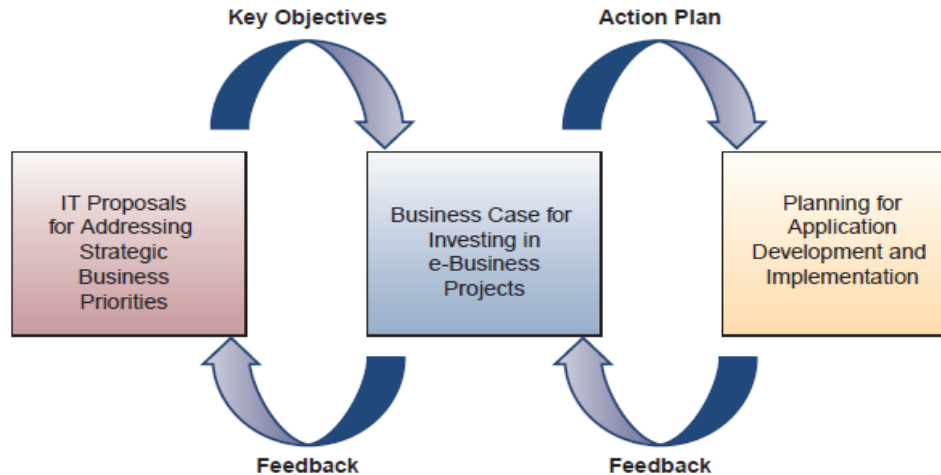
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- Prospective-
 - Financial Perspective
 - Customer Perspective
 - Business Process Perspective
 - Learning and Growth Perspective

Identifying Business/IT Strategies

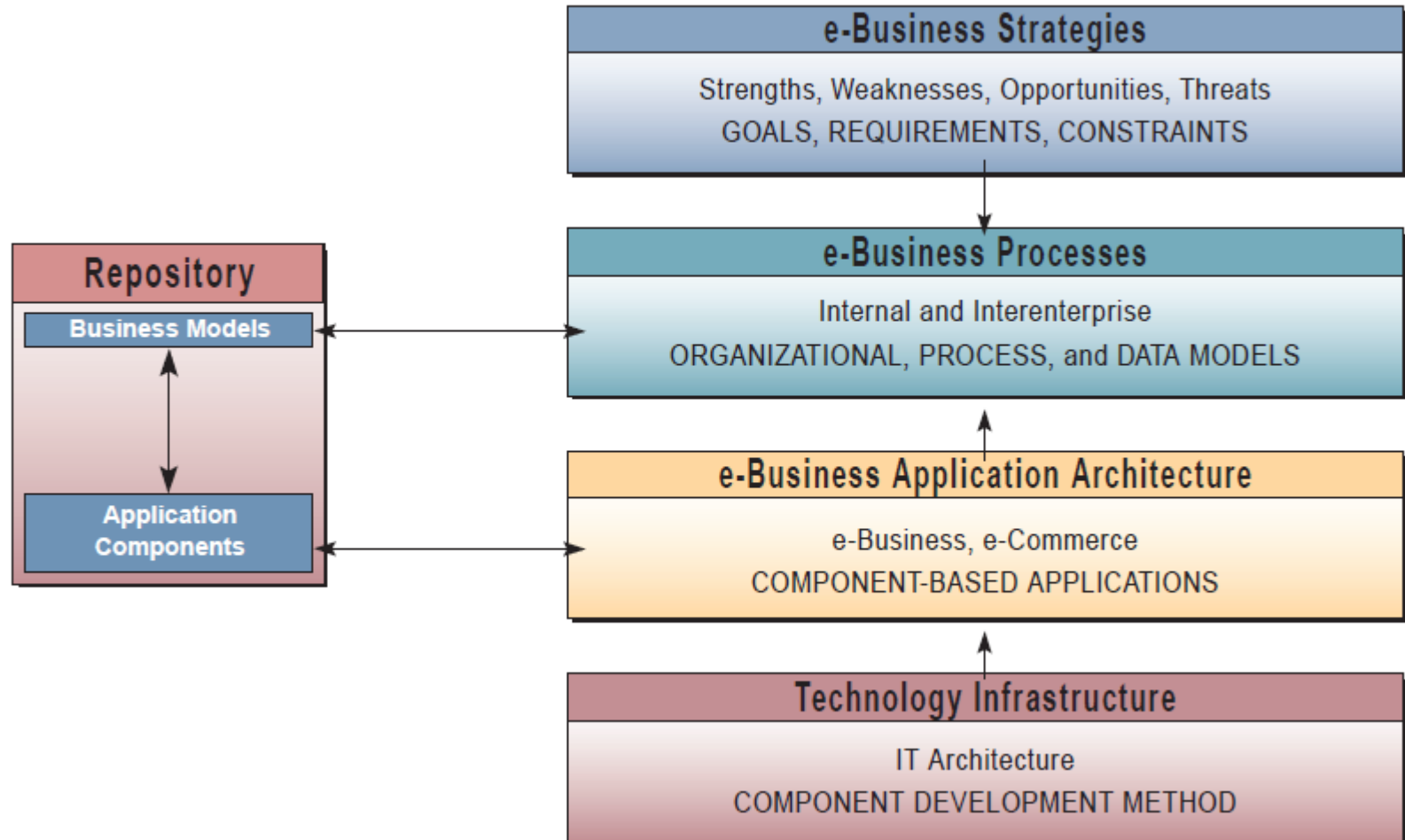


Business Application Planning

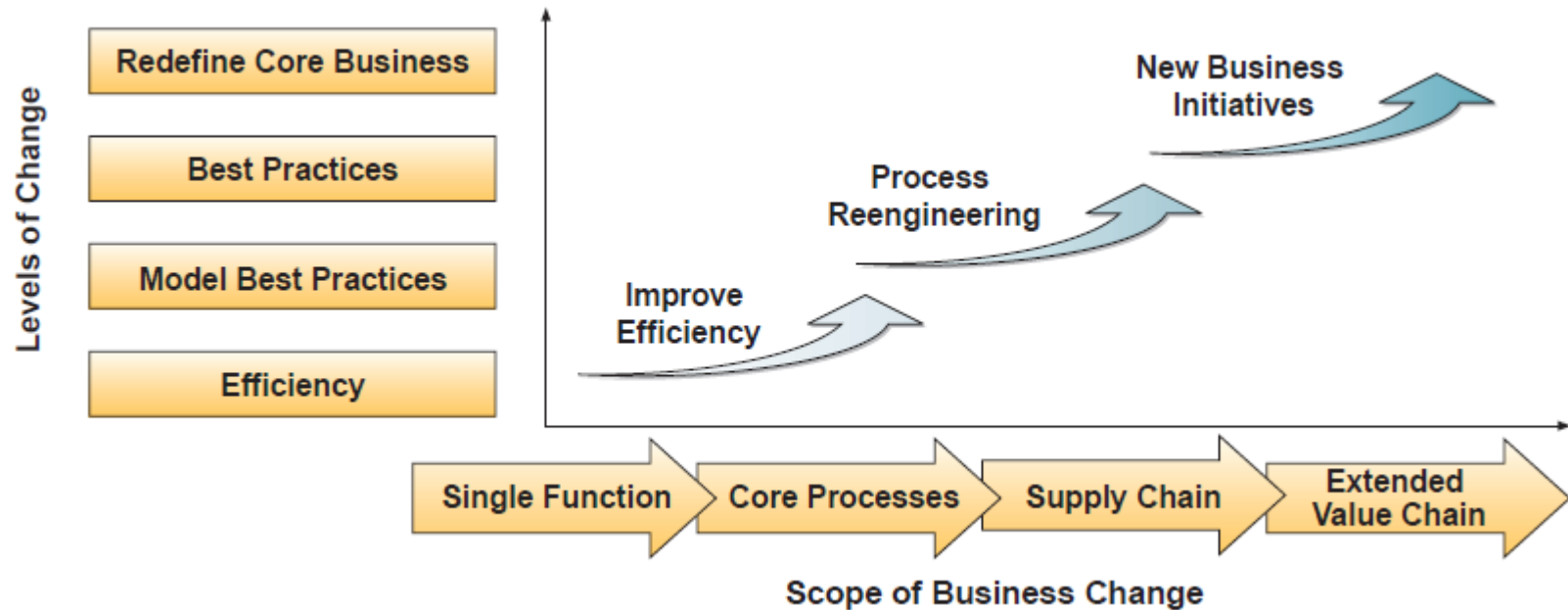


Conventional IT Planning	Avnet Marshall's e-Business Planning
<ul style="list-style-type: none"> • Strategic alignment: IT strategy tracks specified enterprise strategy • CEO endorses IT vision shaped through CIO • IT application development projects functionally organized as technological solutions to business issues • Phased application development based on learning from pilot projects 	<ul style="list-style-type: none"> • Strategic improvisation: IT strategy and enterprise business strategy coadaptively unfold based on the clear guidance of a focus on customer value • CEO proactively shapes IT vision jointly with CIO as part of e-business strategy • IT application development projects co-located with e-business initiatives to form centers of IT-intensive business expertise • Perpetual application development based on continuous learning from rapid deployment with incomplete functionality and end-user involvement

Business/IT Architecture Planning



Implementation Challenges



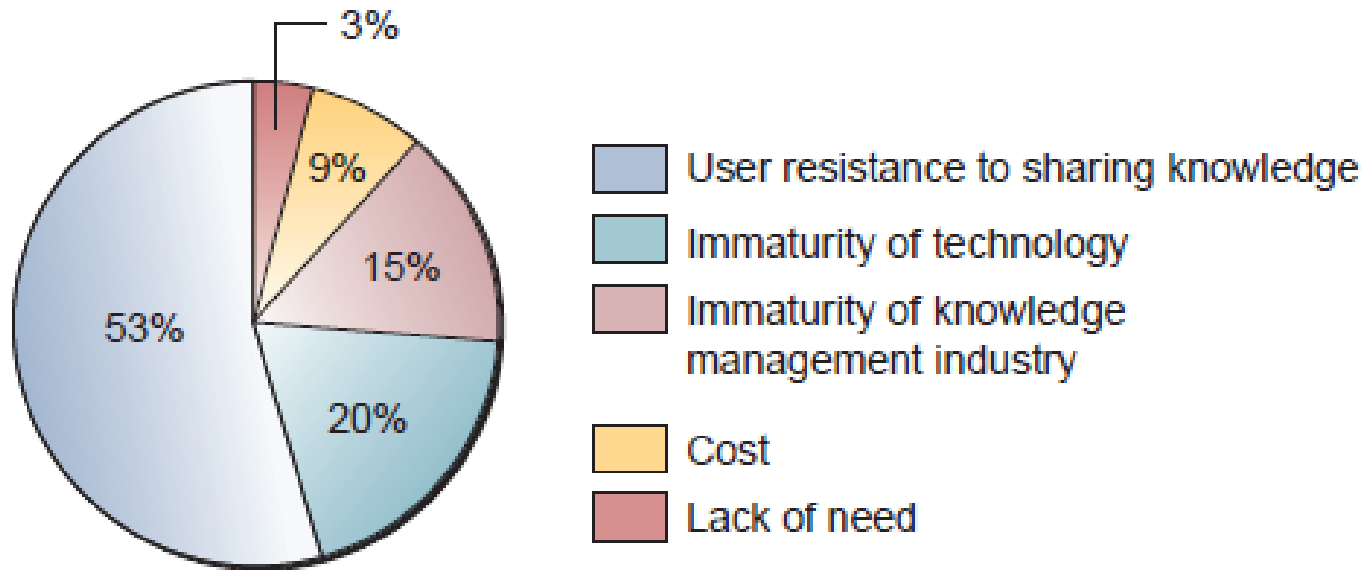
The impact and the levels and scope of business change introduced by implementations of information technology.

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Intranet Enterprise Portal Challenges	Enterprise Resource Planning Challenges
<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Getting end-user buy-in• Scheduling/planning• Integrating legacy systems/data• Getting management buy-in• Dealing with multiple/international sites and partners• Changing culture/mind-sets• IT training• Getting, keeping IT staff• Moving to a new platform• Performance/system upgrades

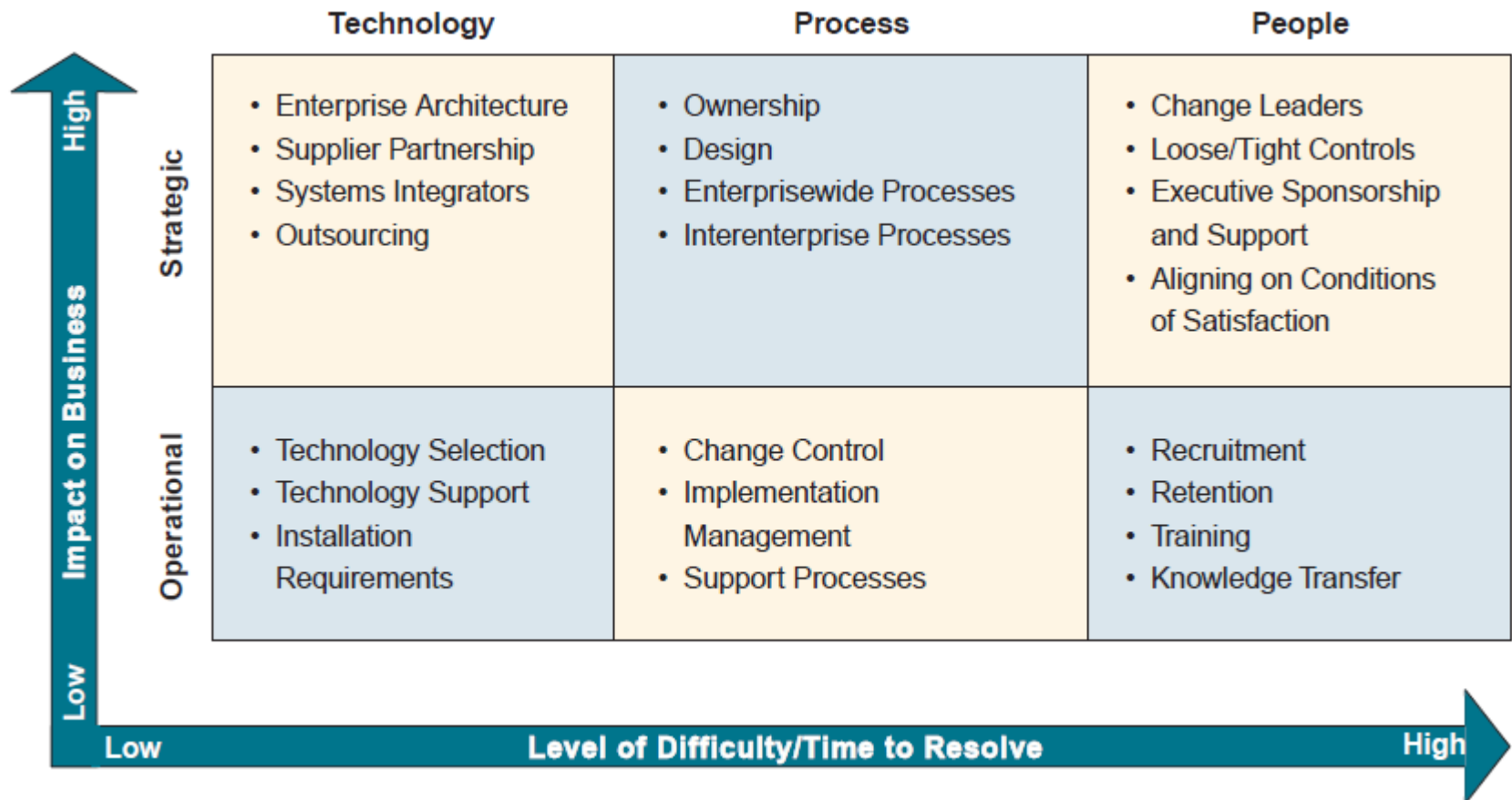
The 10 greatest challenges of developing and implementing intranet enterprise portals and enterprise resource planning systems reported by 100 companies.

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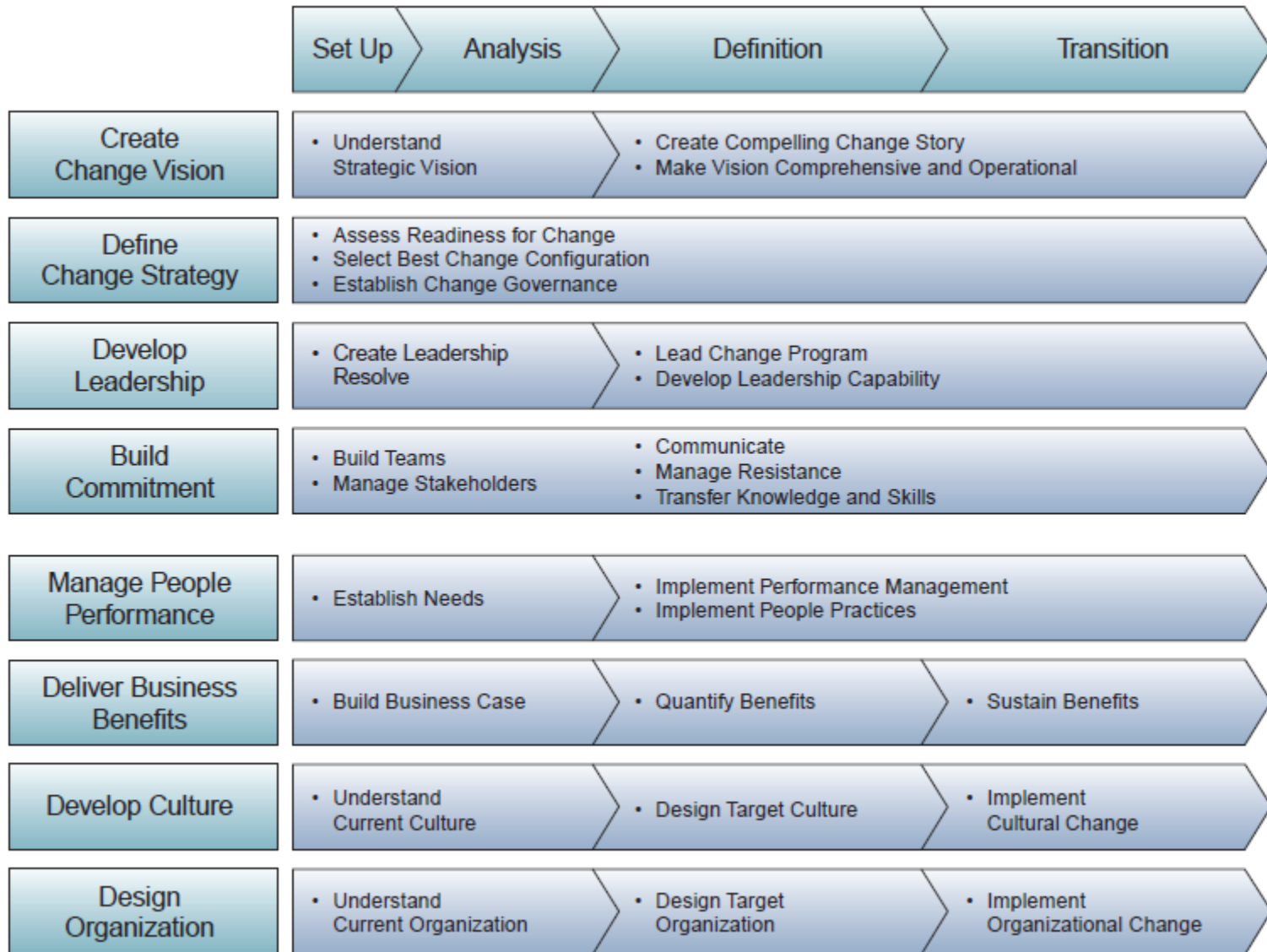
Obstacles to knowledge management systems. The end-user resistance to knowledge sharing is the biggest obstacle.

Change Management



Some of the key dimensions of change management. Examples of the people, process, and technology factors involved in managing the implementation of IT-based changes to an organization.

The Change Management Process



Solutions

- 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, preferably in person.
- Make liberal use of financial incentives and recognition.
- Work within the company culture, not around it.

Summery

- Organizational Planning
- Business/IT Planning
- Implementing Business Change

Developing Business/IT Solutions

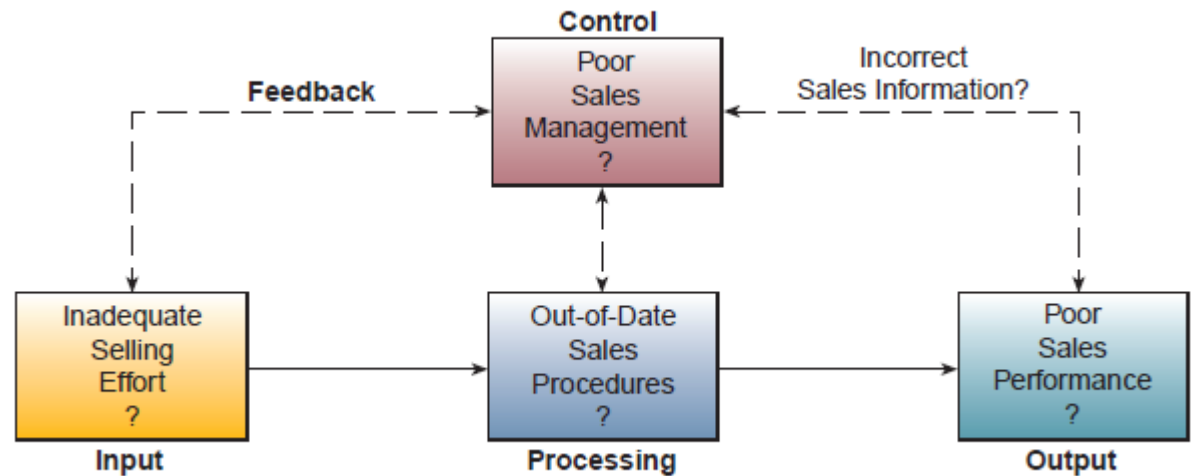
The Systems Approach

- Recognize and define a problem or opportunity using *systems thinking* .
- Develop and evaluate alternative system solutions.
- Select the system solution that best meets your requirements.
- Design the selected system solution.
- Implement and evaluate the success of the designed system.

Systems Thinking

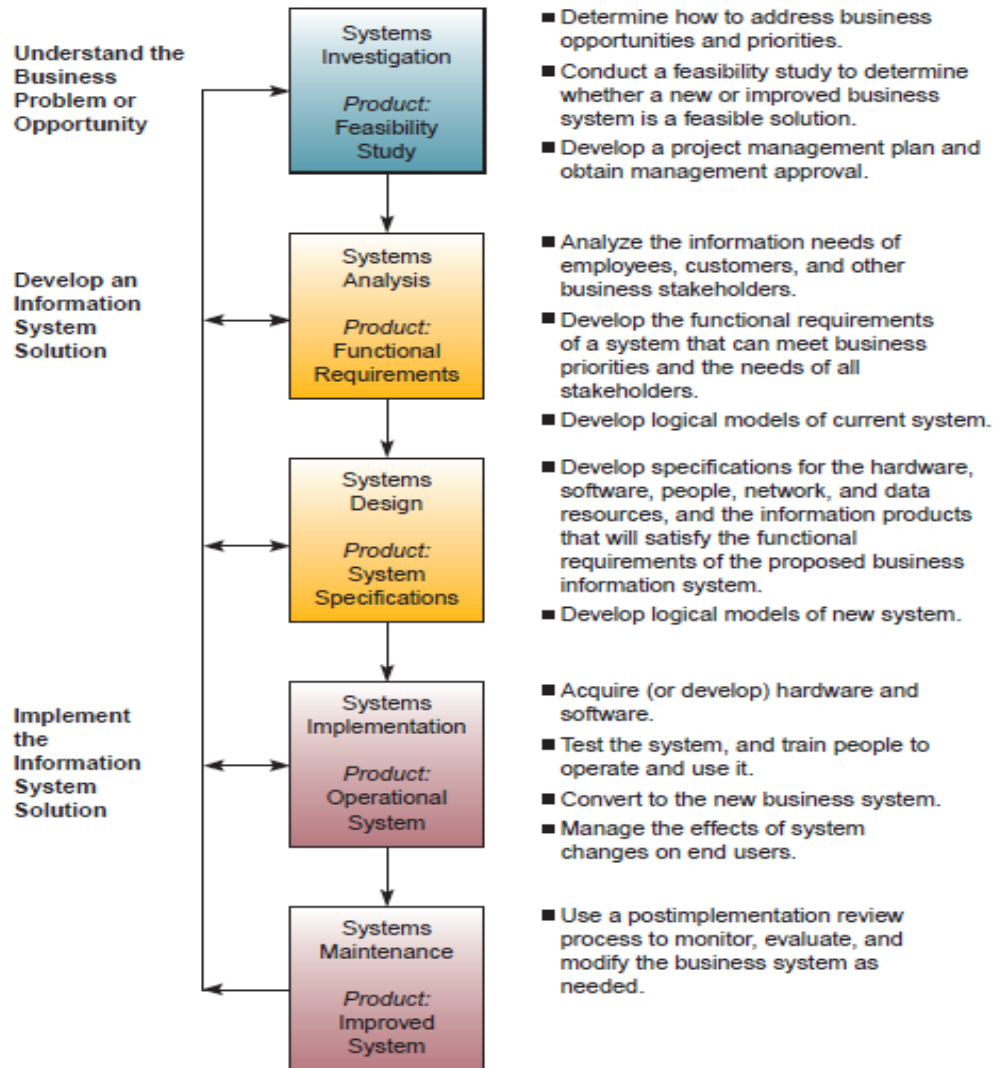
- Seeing *interrelationships* among *systems* rather than linear cause-and-effect chains whenever events occur.
- Seeing *processes* of change among *systems* rather than discrete “snapshots” of change, whenever changes occur.

An example of systems thinking. You can better understand a sales problem or opportunity by identifying and evaluating the components of a sales system.



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The traditional information systems development life cycle.



Feasibility Studies

Operational Feasibility	Economic Feasibility
<ul style="list-style-type: none">• How well the proposed system supports the business priorities of the organization.• How well the proposed system will solve the identified problem.• How well the proposed system will fit with the existing organizational structure.	<ul style="list-style-type: none">• Cost savings.• Increased revenue.• Decreased investment requirements.• Increased profits.• Cost/benefit analysis.
Technical Feasibility	Human Factors Feasibility
<ul style="list-style-type: none">• Hardware, software, and network capability, reliability, and availability.	<ul style="list-style-type: none">• Employee, customer, supplier acceptance.• Management support.• Determining the right people for the various new or revised roles.
Legal/Political Feasibility	
<ul style="list-style-type: none">• Patent, copyright, and licensing.• Governmental restrictions.• Affected stakeholders and reporting authority.	

Cost/Benefit Analysis

Tangible Benefits	Example
<ul style="list-style-type: none">• Increase in sales or profits.• Decrease in information processing costs.• Decrease in operating costs.• Decrease in required investment.• Increased operational efficiency.	<ul style="list-style-type: none">• Development of IT-based products.• Elimination of unnecessary documents.• Reduction in inventory carrying costs.• Decrease in inventory investment required.• Less spoilage, waste, and idle time.
Intangible Benefits	Example
<ul style="list-style-type: none">• Improved information availability.• Improved abilities in analysis.• Improved customer service.• Improved employee morale.• Improved management decision making.• Improved competitive position.• Improved business image.	<ul style="list-style-type: none">• More timely and accurate information.• OLAP and data mining.• More timely service response.• Elimination of burdensome job tasks.• Better information and decision analysis.• Systems that lock in customers.• Progressive image as perceived by customers, suppliers, and investors.

Systems Analysis

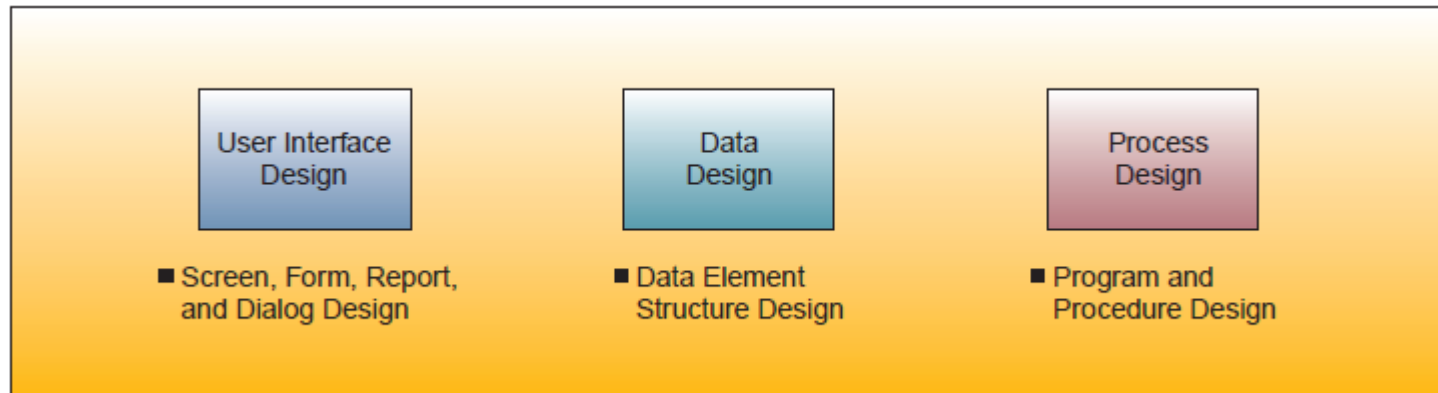
- Objectives
- The information needs of a company and end users like yourself.
- The activities, resources, and products of one or more of the present information systems being used.
- The information system capabilities required to meet your information needs, and those of other business stakeholders that may use the system.

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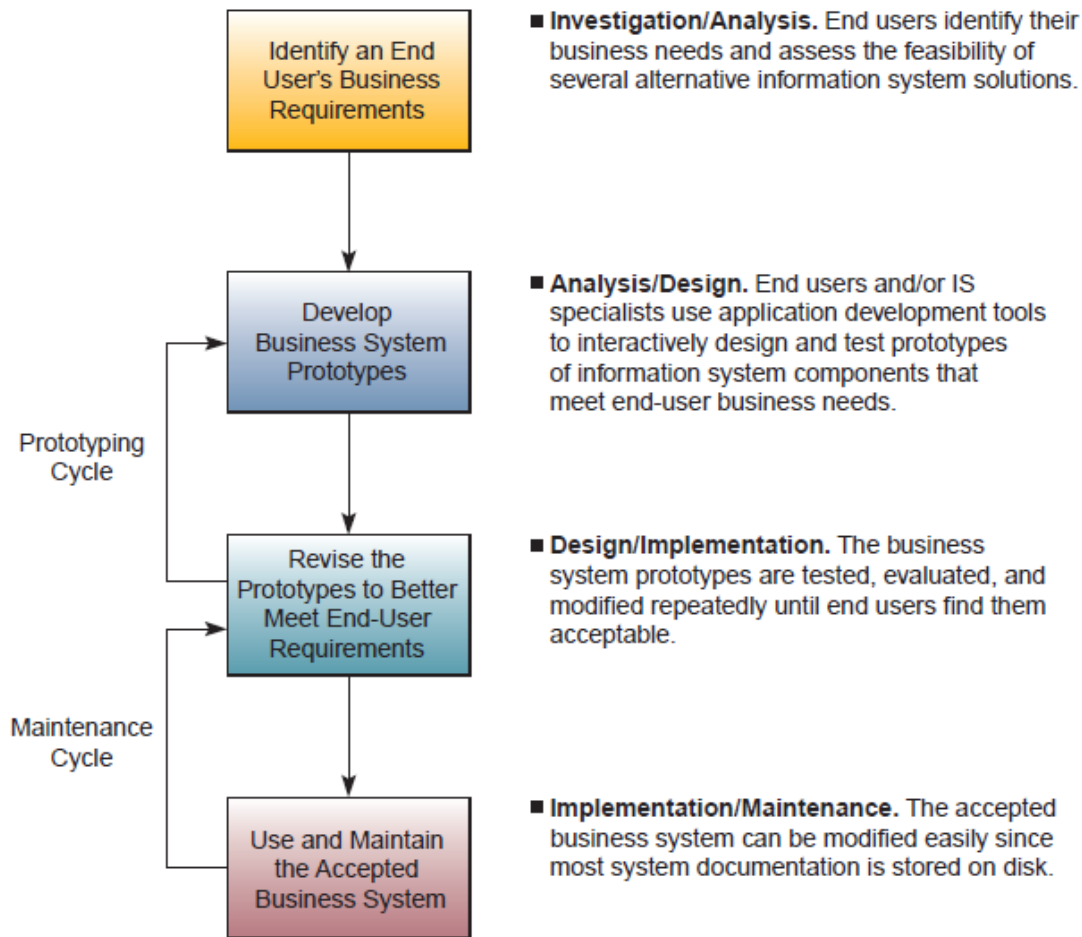
- Organizational Analysis
- Analysis of the Present System
- Logical Analysis
- Functional Requirements Analysis and Determination

Examples of Functional Requirements	
• User Interface Requirements	Automatic entry of product data and easy-to-use data entry screens for Web customers.
• Processing Requirements	Fast, automatic calculation of sales totals and shipping costs.
• Storage Requirements	Fast retrieval and update of data from product, pricing, and customer databases.
• Control Requirements	Signals for data entry errors and quick e-mail confirmation for customers.

System Design



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Example

Example of Prototyping Development
• Team. A few end users and IS developers form a team to develop a business application.
• Schematic. The initial prototype schematic design is developed.
• Prototype. The schematic is converted into a simple point-and-click prototype using prototyping tools.
• Presentation. A few screens and routine linkages are presented to users.
• Feedback. After the team gets feedback from users, the prototype is reiterated.
• Reiteration. Further presentations and reiterations are made.
• Consultation. Consultations are held with IT consultants to identify potential improvements and conformance to existing standards.
• Completion. The prototype is used as a model to create a finished application.
• Acceptance. Users review and sign off on their acceptance of the new business system.
• Installation. The new business software is installed on network servers.

User Interface Design

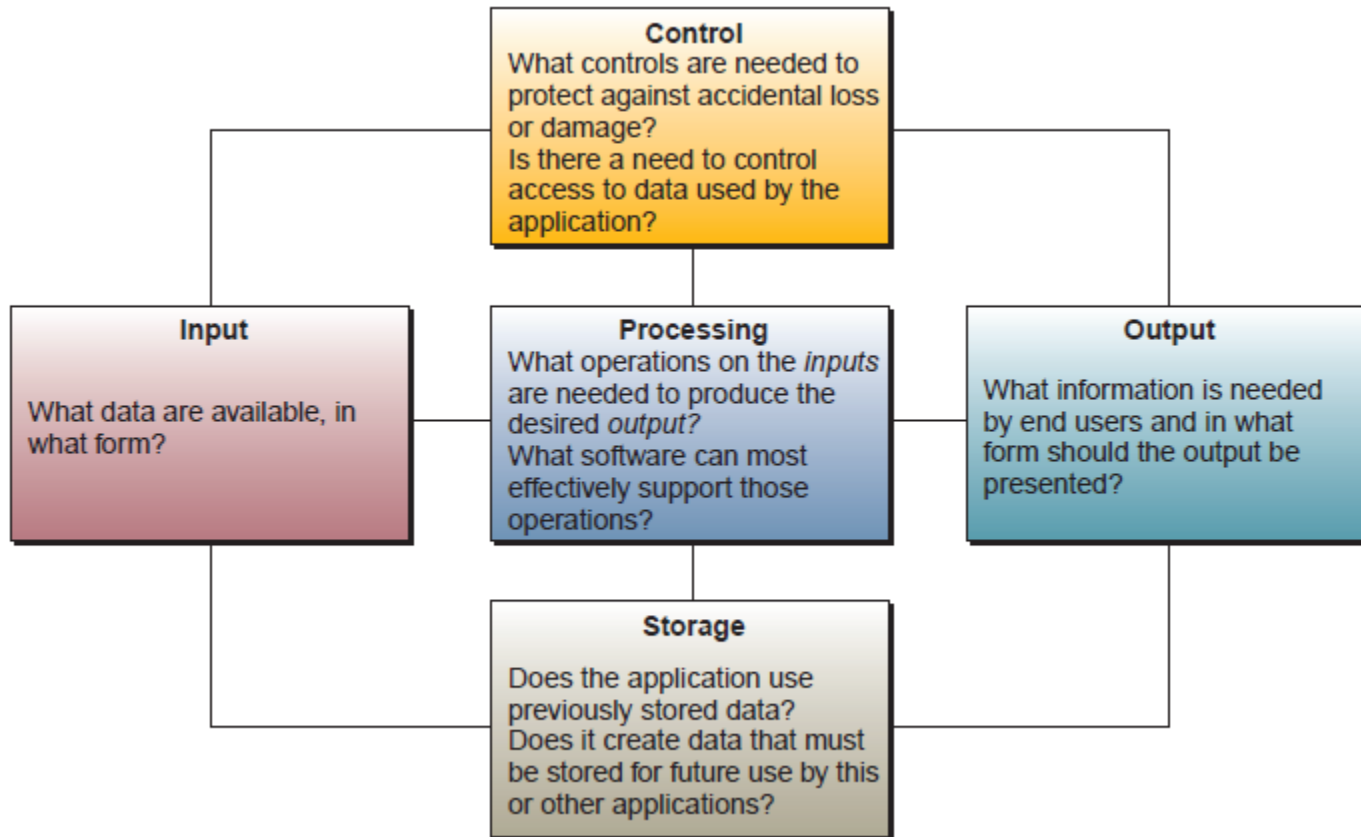
Checklist for Corporate Web sites

- **Remember the Customer:** Successful Web sites are built solely for the customer, not to make company vice presidents happy.
- **Aesthetics:** Successful designs combine fast-loading graphics and simple color palettes for pages that are easy to read.
- **Broadband Content:** The Web's coolest stuff can't be accessed by most Web surfers. Including a little streaming video isn't bad, but don't make it the focus of your site.
- **Easy to Navigate:** Make sure it's easy to get from one part of your site to another. Providing a site map, accessible from every page, helps.
- **Searchability:** Many sites have their own search engines; very few are actually useful. Make sure yours is.
- **Incompatibilities:** A site that looks great on a PC using Internet Explorer can often look miserable on an iBook running Netscape.
- **Registration Forms:** Registration forms are a useful way to gather customer data. But make your customers fill out a three-page form, and watch them flee.
- **Dead Links:** Dead links are the bane of all Web surfers—be sure to keep your links updated. Many Web-design software tools can now do this for you.

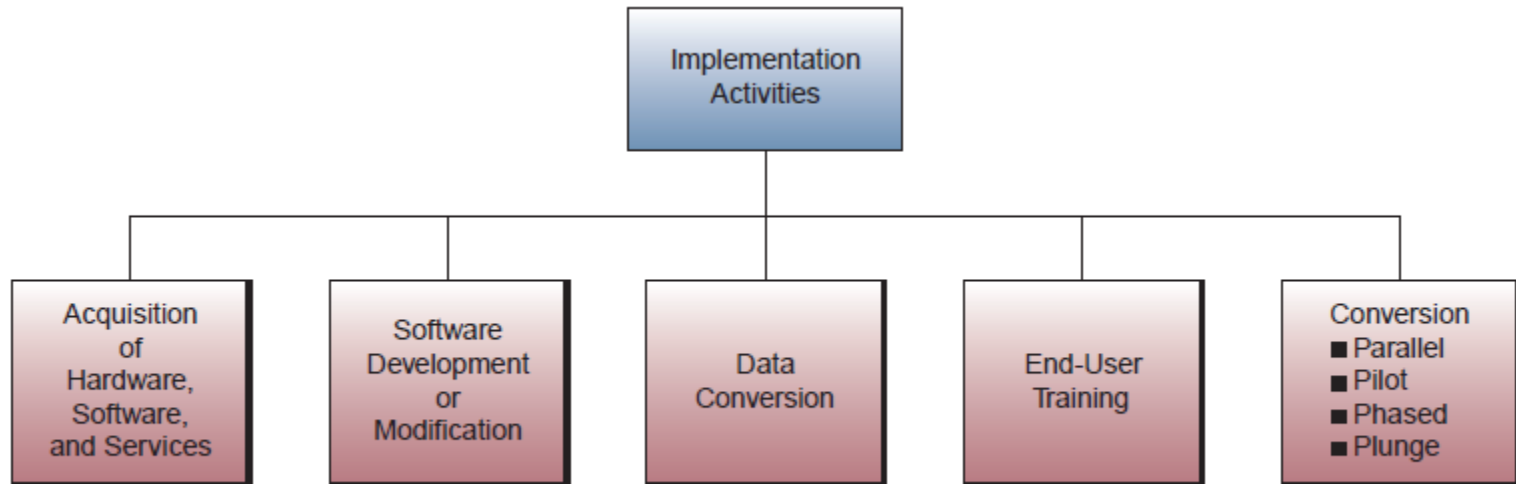
System Specifications

Examples of System Specifications	
<ul style="list-style-type: none">• User Interface Specifications	Use personalized screens that welcome repeat Web customers and that make product recommendations.
<ul style="list-style-type: none">• Database Specifications	Develop databases that use object/relational database management software to organize access to all customer and inventory data and to multimedia product information.
<ul style="list-style-type: none">• Software Specifications	Acquire an e-commerce software engine to process all e-commerce transactions with fast responses, i.e., retrieve necessary product data and compute all sales amounts in less than one second.
<ul style="list-style-type: none">• Hardware and Network Specifications	Install redundant networked Web servers and sufficient high-bandwidth telecommunications lines to host the company e-commerce Web site.
<ul style="list-style-type: none">• Personnel Specifications	Hire an e-commerce manager and specialists and a Webmaster and Web designer to plan, develop, and manage e-commerce operations.

End-User Development



Implementing Business Systems



Project Management

Project Management Phase	Example Activities
Initiating/Defining	<ul style="list-style-type: none">• State the problem(s)/goal(s).• Identify the objectives.• Secure resources.• Explore costs/benefits in feasibility study.
Planning	<ul style="list-style-type: none">• Identify and sequence activities.• Identify the “critical path.”• Estimate time and resources needed for completion.• Write a detailed project plan.
Executing	<ul style="list-style-type: none">• Commit resources to specific tasks.• Add additional resources/personnel if necessary.• Initiate project work.
Controlling	<ul style="list-style-type: none">• Establish reporting obligations.• Create reporting tools.• Compare actual progress with baseline.• Initiate control interventions if necessary.
Closing	<ul style="list-style-type: none">• Install all deliverables.• Finalize all obligations/commitments.• Meet with stakeholders.• Release project resources.• Document the project.• Issue final report.

Evaluating Hardware, Software & Services

Hardware
Full range of offerings, including xSeries servers, iSeries midrange servers for small and midsize businesses, RS/6000 servers for UNIX customers, and z900 mainframes for large enterprises. Also has full range of storage options.
Software
<p>Web server: Lotus DominoGo Web server.</p> <p>Storefront: WebSphere Commerce Suite (formerly known as Net.Commerce) for storefront and catalog creation, relationship marketing, and order management. Can add Commerce Integrator to integrate with back-end systems and Catalog Architect for content management.</p> <p>Middleware/transaction services: WebSphere application server manages transactions. MQ Series queues messages and manages connections. CICS processes transactions.</p> <p>Database: DB2 Universal Database.</p> <p>Tools: WebSphere Studio includes set of predefined templates and common business logic.</p> <p>Other applications include: IBM Payment Suite for handling credit cards and managing digital certificates.</p>
Services
IBM Global Services, which includes groups organized by each major industry, including retail and financial. Can design, build, and host e-commerce applications.

Hardware Evaluation Factors

Hardware Evaluation Factors	Rating
Performance What is its speed, capacity, and throughput?	
Cost What is its lease or purchase price? What will be its cost of operation and maintenance?	
Reliability What are the risk of malfunction and its maintenance requirements? What are its error control and diagnostic features?	
Compatibility Is it compatible with existing hardware and software? Is it compatible with hardware and software provided by competing suppliers?	
Technology In what year of its product life cycle is it? Does it use a new untested technology, or does it run the risk of obsolescence?	
Ergonomics Has it been “human factors engineered” with the user in mind? Is it user-friendly, designed to be safe, comfortable, and easy to use?	
Connectivity Can it be easily connected to wide area and local area networks that use different types of network technologies and bandwidth alternatives?	
Scalability Can it handle the processing demands of a wide range of end users, transactions, queries, and other information processing requirements?	
Software Are system and application software available that can best use this hardware?	
Support Are the services required to support and maintain it available?	
Overall Rating	

Software Evaluation Factors

Software Evaluation Factors	Rating
Quality Is it bug-free, or does it have many errors in its program code?	
Efficiency Is the software a well-developed system of program code that does not use much CPU time, memory capacity, or disk space?	
Flexibility Can it handle our business processes easily, without major modification?	
Security Does it provide control procedures for errors, malfunctions, and improper use?	
Connectivity Is it <i>Web-enabled</i> so it can easily access the Internet, intranets, and extranets, on its own, or by working with Web browsers or other network software?	
Maintenance Will new features and bug fixes be easily implemented by our own software developers?	
Documentation Is the software well documented? Does it include help screens and helpful software agents?	
Hardware Does existing hardware have the features required to best use this software?	
Other Factors What are its performance, cost, reliability, availability, compatibility, modularity, technology, ergonomics, scalability, and support characteristics? (Use the hardware evaluation factor questions in Figure 12.22.)	
Overall Rating	

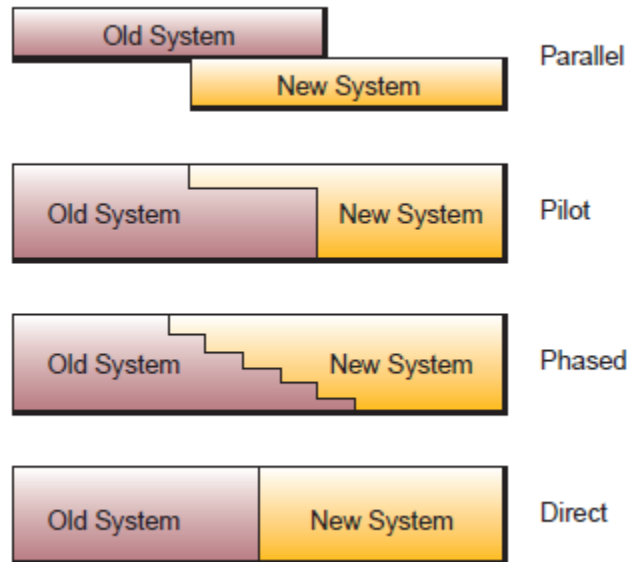
Evaluating IS Services

Evaluation Factors for IS Services	Rating
Performance What has been their past performance in view of their past promises?	
Systems Development Are Web site and other e-business developers available? What are their quality and cost?	
Maintenance Is equipment maintenance provided? What are its quality and cost?	
Conversion What systems development and installation services will they provide during the conversion period?	
Training Is the necessary training of personnel provided? What are its quality and cost?	
Backup Are similar computer facilities available nearby for emergency backup purposes?	
Accessibility Does the vendor provide local or regional sites that offer sales, systems development, and hardware maintenance services? Is a customer support center at the vendor's Web site available? Is a customer hotline provided?	
Business Position Is the vendor financially strong, with good industry market prospects?	
Hardware Do they provide a wide selection of compatible hardware devices and accessories?	
Software Do they offer a variety of useful e-business software and application packages?	
Overall Rating	

Training



Conversion



Systems Maintenance

- Corrective,
- Adaptive,
- Perfective,
- Preventive.
- Post-implementation Review

Summery

Implementing New Systems	
<ul style="list-style-type: none">● Acquisition	Evaluate and acquire necessary hardware and software resources and information system services. Screen vendor proposals.
<ul style="list-style-type: none">● Software Development	Develop any software that will not be acquired externally as software packages. Make any necessary modifications to software packages that are acquired.
<ul style="list-style-type: none">● Data Conversion	Convert data in company databases to new data formats and subsets required by newly installed software.
<ul style="list-style-type: none">● Training	Educate and train management, end users, customers, and other business stakeholders. Use consultants or training programs to develop user competencies.
<ul style="list-style-type: none">● Testing	Test and make necessary corrections to the programs, procedures, and hardware used by a new system.
<ul style="list-style-type: none">● Documentation	Record and communicate detailed system specifications, including procedures for end users and IS personnel and examples of input screens and output displays and reports.
<ul style="list-style-type: none">● Conversion	Convert from the use of a present system to the operation of a new or improved system. This may involve operating both new and old systems in <i>parallel</i> for a trial period, operation of a <i>pilot</i> system on a trial basis at one location, <i>phasing</i> in the new system one location at a time, or a <i>direct cutover</i> to the new system.