



*Master of International Business and Entrepreneurship*

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# Strategic Information Systems Planning

Information Systems  
for  
Managers



# Learning objectives

- To explain why managers must be involved in information systems planning decisions despite their lack of technical expertise.
- To discuss the purpose that strategic information systems planning serves in modern organizations.
- To identify the key components of the strategic information systems planning process, including information systems assessment, information systems vision, and information systems guidelines.
- To explain how to perform an information systems assessment.
- To explain how to decide what role information systems resources should play in your firm using available analytical tools to develop an information systems vision.
- To explain what role information systems guidelines play in the planning process and how to develop them upon having established an information systems vision.
- To help you evaluate how well positioned your organization is to achieve its information vision following the guidelines and to develop consistent strategic initiatives.

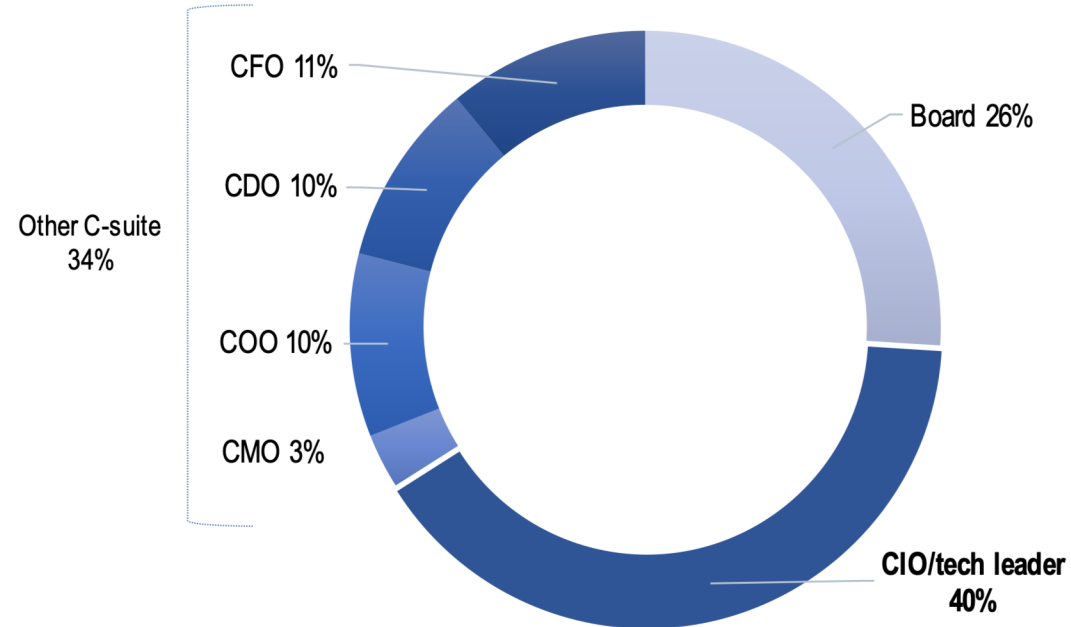
# Introduction

- With information technology (IT) increasingly embedded in all aspects of business operations, the most successful organizations are those that are able to establish a productive partnership between IT executives and their functional counterparts.
- Whether or not you are able to establish a productive partnership with the information systems (IS) professionals in your organization, you must be involved in the strategic planning and management of information systems in your firm



# The Changing Face

- Most successful organizations are those that are able to establish a productive partnership between IT executives and their functional counterparts
- The changing face of who the CIO reports to



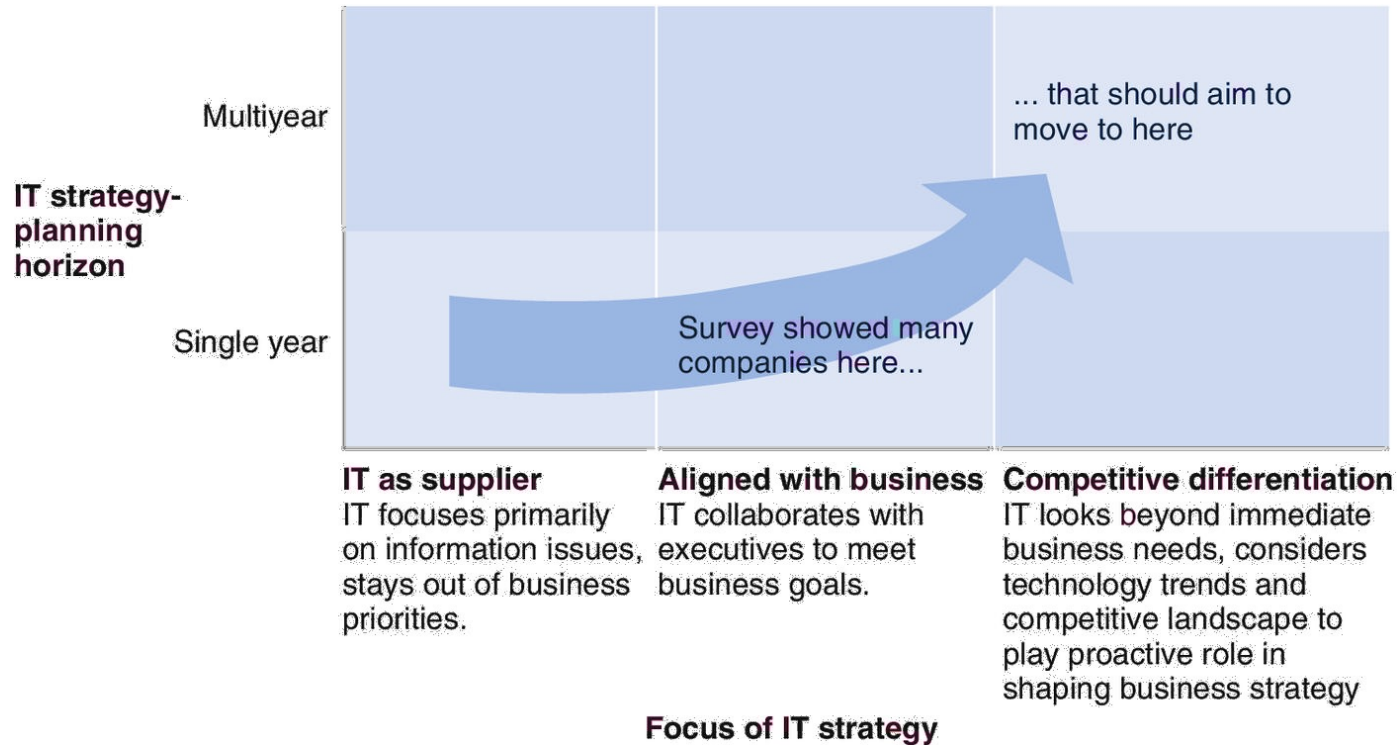
# Strategic and Operational Planning

- The realm of strategy pertains to the decisions that an organization makes with respect to how it will develop and deploy its resources over time in an effort to achieve its long- range objectives
  - long-range decisions about resource development and deployment
- Operational decision making
  - local decisions in the present
- Focus on how the firm will build and deploy its IS resources to achieve its long-range business objectives

# Strategic Alignment

- A firm that has been able to achieve a high degree of fit and consonance between the priorities and activities of the IS function and the strategic direction of the firm has achieved strategic alignment
- Alignment has a direct impact on firm performance, and alignment is perennially on the top- 10 list of CIO priorities
- Strategic alignment is very difficult to achieve and maintain, particularly in those highly competitive environments where opportunities arise and fade quickly, and strategic priorities change constantly. Thus ensuring a high degree of strategic IS alignment requires as much improvisation as careful planning

# Creating Value with digital technologies



# Six Decisions Requiring Managerial Involvement

How much should we spend on IT?	This question is designed to force senior executives to discuss and decide on what the role of information systems and technology should be in the organization.
Which business processes should receive the IT dollars?	This question requires executives to decide what business processes are most important to the firm at a given point.
Which IT capabilities need to be companywide?	This question requires executives to weigh the cost/benefits of standardization and flexibility.
How good do our IT services really need to be?	This question forces executives to make conscious decisions about the degree of service the firm needs and that they are willing to pay for.
What security and privacy risks will we accept?	This question forces executives to make conscious decisions about privacy and security risk management.
Whom do we blame if an IT initiative fails?	This question forces executives to clearly identify and assign responsibility for information systems projects.



# Six Key IS Decisions & Their Actions

1. **How much should we spend on IT?**
  - Define the role of IS and technology should be
2. **Which business processes should receive the IT dollars?**
  - Define which business processes are most important
3. **Which IT capabilities need to be companywide?**
  - Focus on the cost/benefits of standardization and flexibility
4. **How good do our IT services really need to be?**
  - Decide on the degree of service the firm needs and are willing to pay for
5. **What security and privacy risks will we accept?**
  - Decide on which risk are willing to accept, based upon the controls we have in place
6. **Whom do we blame if an IT initiative fails?**
  - Allocate resources and assign responsibility for IS projects

# Strategic IS Planning

- A partnership between
  - Those with technical and analytical skills
  - The information systems group
  - General and functional managers
- Objective
  - Define how the firm plans to use and manage IS resources to fulfill its strategic objectives

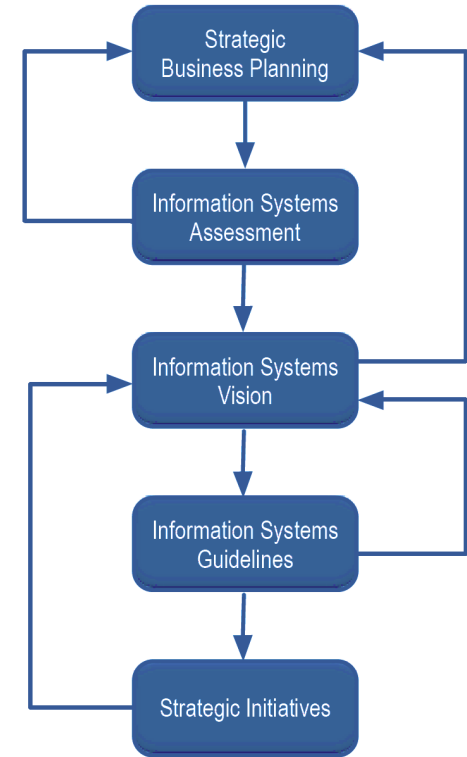


# Advantages of the Planning Process

- ***Plans Enable Communication:*** it enables and supports intraorganizational communication. This communication is critical since individuals typically have different expectations, speak different languages, and often have different objectives and priorities
  - it is critical that consultants serve as members of the planning team rather than as delegates of the firm
- ***Plans Enable Unity of Purpose:*** Organizations achieve their best results when a clear strategy and clear goals have been identified and lead to concerted efforts from the organizational units and employees. The information systems plan serves as a contract of sort, wherein the objectives of information systems deployment are specified and clear responsibilities are agreed upon
- ***Plans Simplify Decision Making over Time:*** the firm will not be in the common situation in which it has to select projects to fund as part of the yearly budgeting process, with little sense of overall direction and purpose

# The Strategic Information Systems Planning Process

- **Strategic business planning**
  - organization's mission and future direction, performance targets, and strategy
- **Information systems assessment**
  - taking stock of the firm's current IS resources and evaluating how well they are fulfilling organizational needs
- **Information systems vision**
  - a concise statement that captures what the planning team believes should be the role of IS resources in the firm
- **Information systems guidelines**
  - a set of statements, or maxims, specifying how the firm should use its technical and organizational IS resources
- **Strategic initiatives**
  - long- term (three- to five- year) proposals that identify new systems and new projects or new directions for the IS organization



# Know Who You Are: Strategic Business Planning

- An organization's mission and future direction, performance targets, and strategy.
- Effective IS planning can only occur when there is a clear understanding of the firm:
  - What makes it successful
  - The business strategy
  - Its future goals and objectives

# Know Where You Start: Information Systems Assessment

- The process of
  - Taking stock of the firm's current IS resources
  - Evaluating how well they are fulfilling the needs of the organization
- IS resources  $\neq$  IT resources
  - **Technical resources:** hardware, software and networking components of the IT infrastructure
  - **Data and information resources:** databases and other information repositories
  - **Human resources:** skills, attitudes, preconceptions, reporting structures and incentive systems of IS professionals and the user community
- **Output:** a snapshot of the current “state of IS resources” in the organization

# Know Where You Want to Go: Information Systems Vision

- Based on the role that information systems should play in the organization
- **Defines the ideal state the firm should strive for, in its use and management of its resources**
  - More IT-intensive firms: IS may play a strategic role
  - Less IT-intensive firms: IS may be a “necessary evil”

# What the Role of IS should be for the Firm?

**The Information Systems Vision**



**The Firm's Business Strategy**

- The IS vision is unique and highly specific to a given firm
- **Two analytical tools**
  - Critical Success Factors (CSF) methodology
  - Strategic impact grid



# Critical Success Factors

## ■ Critical success factors

- the limited number of areas, typically three to six, that executives must effectively manage to ensure that the firm will survive and thrive

## ■ The CSF methodology asks that you identify **what the firm must do right** (not what the IS department must do right) to ensure the ongoing success of the organization

## ■ It ensures that the planning team can **prioritize**

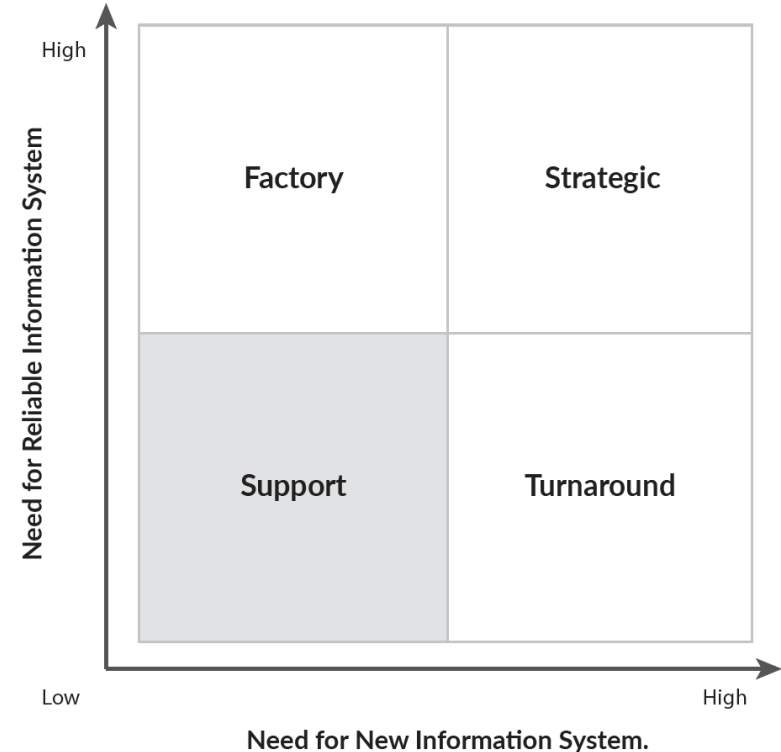
## ■ It focuses on **business objectives**, not on information systems

# The Strategic Impact Grid

- The main advantage offered by the strategic impact grid is its ability to enable simultaneous evaluation of the firm's current and future information systems needs.
- This is achieved by plotting the firm on the following two dimensions:
  - *Current Need for Reliable Information Systems*: focuses on current day-to-day operations and the functionalities of the existing systems
  - *Future Needs for New Information System Functionalities*: forward looking dimension that is concerned with the strategic role that new IT capabilities play for the organization

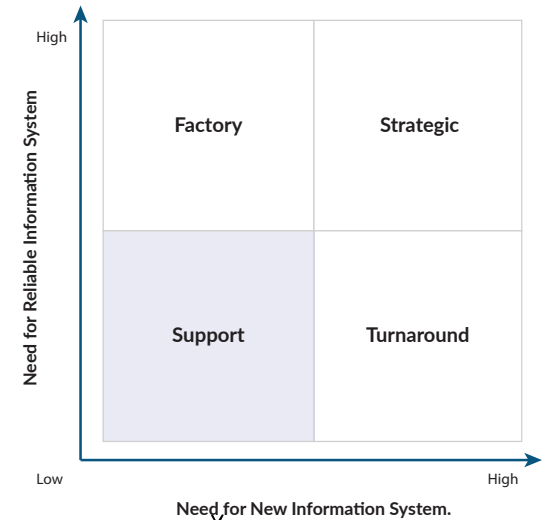
# The Strategic Impact Grid Quadrants

- **Support Quadrant**
  - IS are **not mission critical** for current operations, and this state of affairs is not likely to change in the foreseeable future
- **Factory Quadrant**
  - the company currently **has a technology infrastructure** that enables the business to operate with the needed degree of efficiency and effectiveness
- **Turnaround Quadrant**
  - IS **are not considered mission critical** for current operations. But the planning team believes that in the near future a new information systems or **new functionalities of existing systems will be critical** for the business's future viability and continued (or expected) success
- **Strategic Quadrant**
  - outstanding IS operations and a relentless attention to information systems innovation are a must for companies in this quadrant



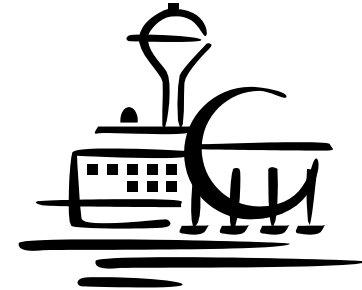
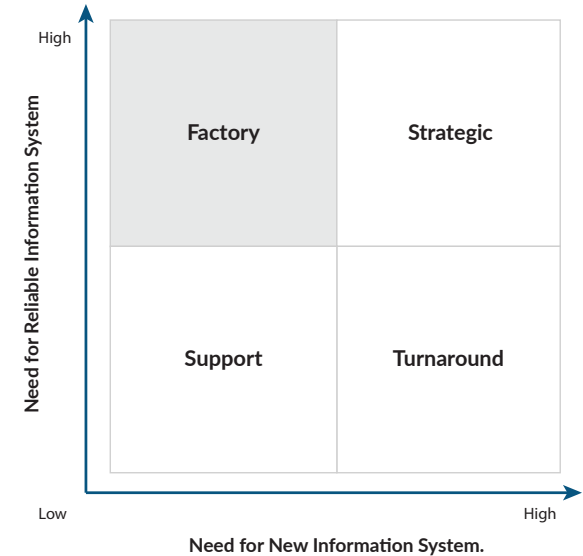
# Support Quadrant

- IS are not mission critical for current operations
- New systems promise little strategic differentiation
- The firm:
  - Views IS as a tool to support and enable operations
  - Considers IS to offer little potential to significantly benefit the organization
  - Is generally conservative in IS investments



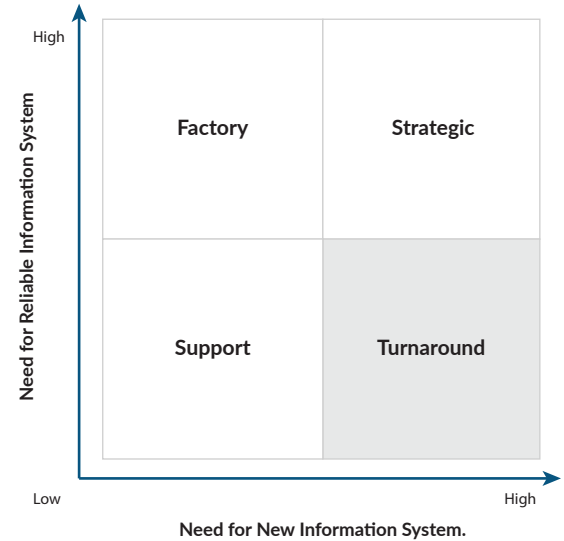
# Factory Quadrant

- Even a small disruptions to IS infrastructure can endanger the firm's well-being and future viability.
- A limited potential for new systems and functionalities to make a substantial contribution
- The firm:
  - Closely monitors its current systems
  - Needs to be willing to fund their maintenance and upgrade.
  - But takes a conservative stance toward future investments.



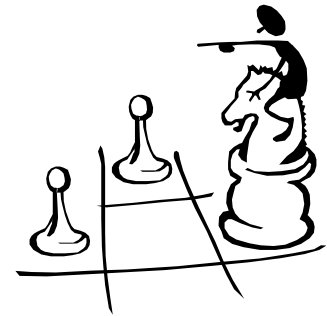
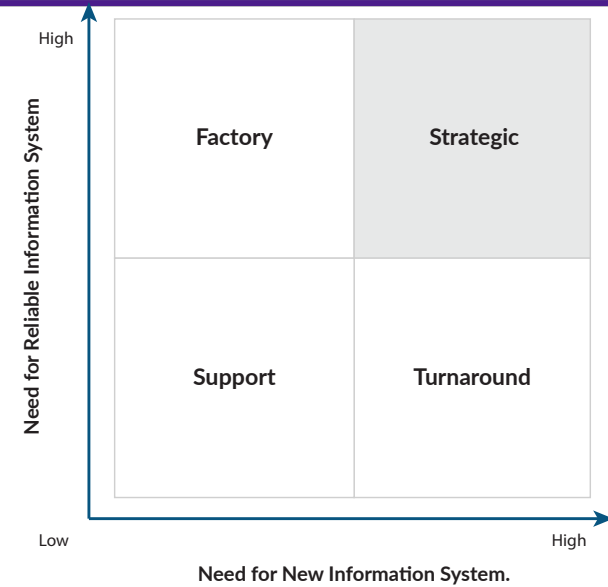
# Turnaround Quadrant

- IS are not mission critical for current operations
- New IS or new functionalities of existing systems will be critical for the business' future viability and success
- The firm:
  - Is readying to change its information systems posture
  - Needs to engage in some reorganization



# Strategic Quadrant

- IS are critical to the firm's current operations
- New IS or new functionalities of existing systems is critical for the future viability and prosperity of the business
- The firm:
  - should be extremely proactive with respect to information systems and IT investments



# Know How You Are Going to Get There: Information Systems Guideline

- Information systems architecture
- A set of statements specifying how the firm should use its technical and organizational IS resources to achieve the IS vision
- Purposes
  - Enable communication
  - Establish responsibility
  - Guide future decision making



# Objectives of the Information Systems Guidelines

## ■ Communication

- simplify tactical and operational decision making and to ensure that future decisions are aligned with the information systems vision

## ■ Identify Responsibilities

- set expectations for behavior, serving a similar binding purpose as policy rules or the custom blueprints and schematics described above
  - Decisions that are made in accordance with the information systems guidelines are in line with expectations and will typically be deemed appropriate
  - Decisions that are made outside of the guidelines are treated as exceptions and will typically need substantial justification

## ■ Long-Range Decision Support

- guidelines must be general enough to provide direction over a number of years. Yet it is crucial that they be actionable. Thus they need to be specific enough to clearly spell out what the firm should do and, as a consequence, what it should not do when it comes to the deployment of information systems resource

# Technical and Organizational Guidelines

## ■ *Technical Information Systems Guidelines*

- focus on the technical components of the firm's information systems must address future decisions pertaining to the hardware and software infrastructure, networking services, and the storage and protection of organizational data and information

## ■ *Organizational Information Systems Guidelines*

- focus on the organizational components of the firm's information systems must address those decisions that pertain to human resources, the organization of the information systems function, reporting and hierarchical structures, and the like

# Know How Well Equipped You Are to Get There: Information Systems SWOT

- SWOT analysis focused on the firm's current IS resources and capabilities
- Remember IS planning is iterative
  - The IS vision may need to be revised according to the result of the SWOT analysis.
- The firm should be clear about what to do during the current planning cycle after
  - Having read the SWOT analysis
  - Given the proposed vision and the guidelines

# From Planning to Action: Proposed Strategic Initiatives

- Long-term (three to five year) proposals that identify new systems and new projects or new directions for the IS organization.
- These initiatives need to
  - Identify a set of future avenues for exploitation of the IS resources
  - Be tightly aligned with the IS vision and the proposed role of IS in the organization

# Summary

- Strategic information systems planning is the process by which the firm, by way of the planning team, develops a shared understanding of the role of information systems resources use in the organization.
- General and functional managers play a crucial role on the planning team, despite the fact that they typically lack technical knowledge. Their role is to help identify the firm's strategy and, in light of that business strategy, to help decide how information systems resources should be used to achieve it.
- General and functional managers should also take the lead in answering questions, such as how much money should be spent on IT, to what business processes these funds should be directed, what IT capabilities should pervade the organization, what levels of IT service should be achieved, what degree of IT risk the firm will accept, and who is responsible for IT initiatives.
- As critical members of the planning team, general and functional managers will help in crafting the firm's information systems vision and guidelines. The information systems vision provides an articulation of the ideal state of information systems resource use, while the guidelines offer a context for decision making.
- With the basic planning mechanisms in place, the firm moves to action and identifies strategic initiatives to be implemented in order to achieve the stated information systems vision. These strategic initiatives often stem from what the organization believes are available opportunities, as well as weaknesses that must be managed.

# What we learned

- To explain why managers must be involved in information systems planning decisions despite their lack of technical expertise.
- To discuss the purpose that strategic information systems planning serves in modern organizations.
- To identify the key components of the strategic information systems planning process, including information systems assessment, information systems vision, and information systems guidelines.
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