LEARNING OUTCOMES

After reading this chapter, you will be able to

LO 12.1 Understand the management of information technology
LO 12.2 Know the basics of business/IT planning
LO 12.3 Assess the benefits of outsourcing and offshoring
LO 12.4 Evaluate the major tenets of global IT management
LO 12.5 Understand the process of global systems development

INTRODUCTION

The strategic and operational importance of information technology in business is no longer questioned. As the 21st century unfolds, many companies throughout the world are intent on transforming themselves into global business powerhouses through major investments in global e-business, e-commerce, and other IT initiatives. Thus, there is a real need for business managers and professionals to understand how to manage this vital organizational function. In this section, we explore how the IS function can be organized and managed, and we emphasize the importance of a customer and business value focus for the management of information technologies. Whether you plan to be an entrepreneur and run your own business, a manager in a corporation, or a business professional, managing information systems and technologies will be one of your major responsibilities.

MANAGING INFORMATION TECHNOLOGY

As we have seen throughout this text, information technology is an essential component of business success for companies today; however, information technology is also a vital business resource that must be properly managed. Thus, we have also seen many real-world examples in which the management of information technologies plays a pivotal role in ensuring the success or contributing to the failure of a company’s strategic business initiatives. Therefore, managing the information systems and technologies that support the modern business processes of companies today is a major challenge for both business and IT managers and professionals.

How should information technology be managed? Figure 12.1 illustrates one popular approach to managing information technology in a large company. This managerial approach has three major components:

- Managing the Joint Development and Implementation of Business/IT Strategies. Led by the CEO (chief executive officer) and CIO (chief information officer), proposals are
developed by business and IT managers and professionals regarding the use of IT to support the strategic business priorities of the company. This business/IT planning process aligns IT with strategic business goals. The process also includes evaluating the business case for investing in the development and implementation of each proposed business/IT project.

- **Managing the Development and Implementation of New Business/IT Applications and Technologies.** This step is the primary responsibility of the CIO and CTO (chief technology officer). This area of IT management involves managing the processes for information systems development and implementation we discussed in Chapter 12, as well as the responsibility for research into the strategic business uses of new information technologies.

- **Managing the IT Organization and the IT Infrastructure.** The CIO and IT managers share responsibility for managing the work of IT professionals who are typically organized into a variety of project teams and other organizational subunits. In addition, they are responsible for managing the IT infrastructure of hardware, software, databases, telecommunications networks, and other IT resources, which must be acquired, operated, monitored, and maintained.

### Learning Outcome 12.2

**BUSINESS/IT PLANNING**

Figure 12.2 illustrates the **business/IT planning process,** which focuses on discovering innovative approaches to satisfying a company’s customer value and business value goals. This planning process leads to the development of strategies and business models for new business applications, processes, products, and services. Then a company can develop IT strategies and an IT architecture that supports building and implementing its newly planned business applications.

Both the CEO and the CIO of a company must manage the development of complementary business and IT strategies to meet its customer value and business value vision. This **coadaptation** process is necessary because, as we have seen so often in this text, information technologies are a fast-changing but vital component in many strategic business initiatives. The business/IT planning process has three major components:

- **Strategy Development.** Developing business strategies that support a company’s business vision. For example, using information technology to create innovative e-business systems that focus on customer and business value. We will discuss this process in more detail shortly.

- **Resource Management.** Developing strategic plans for managing or outsourcing a company’s IT resources, including IS personnel, hardware, software, data, and network resources.

- **Technology Architecture.** Making strategic IT choices that reflect an information technology architecture designed to support a company’s business/IT initiatives.
Figure 12.2 The business/IT planning process emphasizes a customer and business value focus for developing business strategies and models and an IT architecture for business applications.

Learning Outcome 12.3

OUTSOURCING AND OFFSHORING IT AND IS

An increasingly popular approach to managing the IS and IT functions of the organization is to adopt an outsourcing strategy. Outsourcing, in broad terms, is the purchase of goods or services that were previously provided internally from third-party partners. Outsourcing is a generic term used for a broad range of information technology functions that are selectively contracted to an external service provider.

BPO: The Indian Advantage

Indian IT and ITeS units are successfully providing high quality and cost-effective processing, and diversified IT services to clients in various geographies.

The Indian IT-IteS industry has shown terrific growth with a CAGR of above 25 per cent over the previous 5 years. This has been reflected in both exports of the software and services sector and the surge in the domestic market. India has led the growth because of various reasons: abundance of talent, superior delivery quality, excellent IT infrastructure, IT skill sets, cost advantage, and favorable policy interventions by the government along with other growth-oriented policy moves.

The primary objective of any offshoring unit is to provide ready and flexible capacity with secured, enabled technology infrastructure in order to increase the organization’s global operational footprint. The organization gets cost and delivery quality advantage. The IT infrastructure frameworks are built with tools in such a way as to provide an ongoing operational excellence in a secured environment, which is available, flexible, interoperable and provides an extension of the customer’s secured environment.

The building and execution of these frameworks has been a part of industry learning, based on sharing of the best practices through peer to peer network of CXOs, and the experience of implementing the technology locally.

An organization setting up a new business has to manage facilities and IT infrastructures consistent with its growth imperatives. Each site and facility has to follow approved designed architecture. Excellent relationship with vendor partners becomes very important, as that ensures they provide durable and scalable solutions to growing complex scenarios.

It is, of course, a bottomline in this business that the facility design must be resilient and secured. It should have the capability to scale to the need of the growing business. Each
operational area gets built with resilient IT infrastructure and architecture providing security and high availability. The network implementation and application hosting ensures high confidentiality through identity management, and logical and physical profiling of all employees working on the process.

Predominately in these businesses the IT infrastructure has the state-of-the-art hardware configuration with ability to provide n+1 failproof capabilities. A good industry practice is to have BOQ for the IT infrastructure chosen from proven standards providing virtualization, cross platform integration, complete application manageability through single source, and management and controllership through best in class tools. This would provide the organization flexibility, interoperability, ability to implement virtualization, and identity management fulfilling all the critical objectives of the organization.

The next key success factor is to manage the customer expectation. The success of off-shoring was initiated based on wage arbitrage, but has been only a first step. The growth of existing processes and new businesses through various successful repeat customers is because expectations have been fulfilled and surpassed. The third dimension of the success factor is regulatory compliance. Many of the large conglomerates, financial institutions, and Fortune 500 companies establishing base in India are global corporations. It is well understood that most offshoring activities have an element of risk for businesses. By aligning the IT design to worldclass standards, the Indian IT-ITeS sector has ensured that risks are mitigated and the perimeter of the security of their organization is extended to customer operations. Through risk management, internal and external audits, and by adopting best-in-class IT framework, Indian BPOs and offshoring units have provided an element of trust to their customers along with operational excellence ensuring a complete compliance to regulatory requirements.


Outsourcing

A commonly outsourced IS function is software application development. This process includes contracting (or subcontracting) with an external organization for the development of complete or partial software products/projects, the purchase of packaged or customized package software products, or activities and/or resources that aid in the software development life cycle. Figure 12.3 lists the functions typically outsourced, the reasons behind the decision to outsource, and several aspects associated with successful vendor selection and a successful outsourcing effort.

Offshoring

Although often confused with outsourcing, offshoring is also increasingly becoming part of a strategic approach to IS/IT management. Offshoring can be defined as a relocation of an organization’s business processes (including production/manufacturing) to a lower-cost location, usually overseas. Offshoring can be considered in the context of either production offshoring or services offshoring. After its accession to the World Trade Organization (WTO), China emerged as a prominent destination for production offshoring. After technical progress in telecommunications improved the possibilities of trade in services, India became a country that chose to focus on this domain.

Learning Outcome 12.4

GLOBAL IT MANAGEMENT

Figure 12.4 illustrates the major dimensions of the job of managing global information technology that we cover in this section. Notice that all global IT activities must be adjusted to take into
**Figure 12.3** Outsource’s Top 10. Notice, despite all of the media coverage, application development is No. 3.

<table>
<thead>
<tr>
<th>Top 10 Reasons Companies Outsource</th>
<th>Top 10 Factors in Vendor Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduce and control operating costs</td>
<td>1. Commitment to quality</td>
</tr>
<tr>
<td>2. Improve company focus</td>
<td>2. Price</td>
</tr>
<tr>
<td>3. Gain access to world-class capabilities</td>
<td>3. References/reputation</td>
</tr>
<tr>
<td>4. Free internal resources for other purposes</td>
<td>4. Flexible contract terms</td>
</tr>
<tr>
<td>5. Necessary resources are not available internally</td>
<td>5. Scope of resources</td>
</tr>
<tr>
<td>6. Accelerate reengineering benefits</td>
<td>6. Additional value-added capability</td>
</tr>
<tr>
<td>7. Function is difficult to manage internally or is out of control</td>
<td>7. Cultural match</td>
</tr>
<tr>
<td>8. Make capital funds available</td>
<td>8. Existing relationship</td>
</tr>
<tr>
<td>9. Share risks</td>
<td>9. Location</td>
</tr>
<tr>
<td>10. Cash infusion</td>
<td>10. Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top 10 Factors for Successful Outsourcing</th>
<th>Top 10 IT Areas Being Outsourced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understand company goals and objectives</td>
<td>1. Maintenance and repair</td>
</tr>
<tr>
<td>2. A strategic vision and plan</td>
<td>2. Training</td>
</tr>
<tr>
<td>3. Select the right vendor</td>
<td>3. Applications development</td>
</tr>
<tr>
<td>5. A properly structured contract</td>
<td>5. Mainframe data centers</td>
</tr>
<tr>
<td>6. Open communication with affected individuals/groups</td>
<td>6. Client/server services and administration</td>
</tr>
<tr>
<td>7. Senior executive support and involvement</td>
<td>7. Network administration</td>
</tr>
<tr>
<td>8. Careful attention to personnel issues</td>
<td>8. Desktop services</td>
</tr>
<tr>
<td>10. Use of outside expertise</td>
<td>10. Total IT outsourcing</td>
</tr>
</tbody>
</table>

**Figure 12.4** The major dimensions of global e-business technology management.

Account the cultural, political, and geoeconomic challenges that exist in the international business community. Developing appropriate business and IT strategies for the global marketplace should be the first step in **global information technology management**. Once that is done, end users and IS managers can move on to developing the portfolio of business applications needed to support business/IT strategies; the hardware, software, and Internet-based technology platforms to support those applications; the data resource management methods to provide necessary databases; and finally the systems development projects that will produce the global information systems required.
**Aricent—When IT’s the Elixir**

A full-service, full-spectrum communications software company, Aricent has its core infrastructures like LAN, WAN, Internet access, email system, active directory system and IP Key system, etc in place. The company also has the usual hardware stuff like routers, switches, firewalls and various types of servers like development servers and email servers.

**Backbone Called IT**

Being a software development company, Aricent’s IT infrastructure assumes critical importance for its business. “In Aricent, all software product development is aligned with IT. As our business runs on IT, we need high quality infrastructure. Otherwise, if the development server is down, then a team sits idle leading to wastage of manpower,” says Rajeev Seoni, assistant vice president and head, IT, Aricent.

It is this criticality of infrastructure that has coerced the company to use infrastructure management tools (IMT) that help in remotely monitoring the infrastructure and also inform the team about the overloading of a particular server by displaying a red dot on the central screen, enabling requisite rectifications to be made. The IMT monitors desktops, servers and network equipment, etc.

Seoni adds, “The importance of IT infrastructure can be gauged from the fact that even if you are adding 500 new employees, then the basic infrastructure has to be arranged beforehand, so that work can be started.”

**Overall Infrastructure**

The company attaches a lot of importance to information security and predictably has an excellent network security system like the firewalls, anti-spam and intrusion detection system in place. It also has a proper access control system based on a need-to-know basis, that is, anyone not authorized to access a particular project will not be able to access it.

“On the applications front, ERP is the heart of core functionality as it manages critical enterprise functions like the finance, HR, software project management efficiently. We have been using ERP from SAP for the last two years prior to using distributed type of applications built in-house,” says Seoni. For providing good post-sales support of products and for sales force automation, it uses Siebel apart from in-house applications like the Time Sheet. The company also boasts of an intranet called Anthra, a communication tool used by the employees for their daily activities.

On being asked about the level of IT adoption in Aricent, Seoni says: “As far as IT adoption in the infrastructure and development environment goes, it is very high, may be even 100 per cent, so I can say that our IT infrastructure is highly matured and well utilized. But as far as applications goes, there is no end to it.”

**Challenges**

The challenges for IT infrastructure of any growing IT services firm are different from what any other organization would face. This is because the staff itself is up-to-date with the latest technology and predictably expects that the required IT systems would be made available quickly.

“This, in turn, builds up the pressure on us,” he says.

“Another challenge is, during the time of mergers and acquisitions, since the expectation is that we will seamlessly merge with the entity and also start working together. And above all, all of this should be done at minimal costs,” Seoni says.

**Road Ahead**

“We are planning to introduce mobility in our applications to provide information mainly for our sales staff for handling customer queries on the move. This would be introduced within next one year,” Seoni says.

The company is also working on a pilot project of knowledge management system (KMS) and will be used as a strong collaboration tool. “The KMS will essentially focus on solving the attrition problem by capturing experience and knowledge gained of various people by working on various projects,” says Seoni.

GLOBAL BUSINESS/IT STRATEGIES

Businesses are moving away from international strategies in which foreign subsidiaries are autonomous but depend on headquarters for new processes, products, and ideas; or from global strategies, in which a company’s worldwide operations are closely managed by corporate headquarters. Instead, companies are moving toward a transnational strategy, where the company’s business depends heavily on its information systems and Internet technologies to help it integrate its global business activities. Instead of having independent IS units at its subsidiaries, or even a centralized IS operation directed from its headquarters, a transnational business tries to develop an integrated and cooperative worldwide hardware, software, and Internet-based architecture for its IT platform. Figure 12.5 compares the three approaches to global business/IT strategy. Figure 12.6 illustrates how transnational business and IT strategies have been implemented by global companies.

Figure 12.5 Companies operating internationally are moving toward transnational business and IT strategies. Note some of the chief differences among international, global, and transnational business and IT strategies.

<table>
<thead>
<tr>
<th>International</th>
<th>Global</th>
<th>Transnational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomous operations</td>
<td>Global sourcing</td>
<td>Virtual business operations via global alliances</td>
</tr>
<tr>
<td>Region specific</td>
<td>Multiregional</td>
<td>World markets and mass customization</td>
</tr>
<tr>
<td>Vertical integration</td>
<td>Horizontal integration</td>
<td>Global e-commerce and customer service</td>
</tr>
<tr>
<td>Specific customers</td>
<td>Some transparency of customers and production</td>
<td>Transparent manufacturing</td>
</tr>
<tr>
<td>Captive manufacturing</td>
<td>Some cross regionalization</td>
<td>Global supply chain and logistics</td>
</tr>
<tr>
<td>Customer segmentation and dedication by region and plant</td>
<td></td>
<td>Dynamic resource management</td>
</tr>
</tbody>
</table>

Information Technology Characteristics

<table>
<thead>
<tr>
<th>International</th>
<th>Global</th>
<th>Transnational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stand-alone systems</td>
<td>Regional decentralization</td>
<td>distributed, Internet connected</td>
</tr>
<tr>
<td>Decentralized/no standards</td>
<td>Interface dependent</td>
<td>Common global data resources</td>
</tr>
<tr>
<td>Heavy reliance on interfaces</td>
<td>Some consolidation of applications and use of common systems</td>
<td>Integrated global enterprise systems</td>
</tr>
<tr>
<td>Multiple systems, high redundancy, and duplication of services and operations</td>
<td>Reduced duplication of operations</td>
<td>Internet, intranet, extranet, and Web-based applications</td>
</tr>
<tr>
<td>Lack of common systems and data</td>
<td>Some worldwide IT standards</td>
<td>Transnational IT policies and standards</td>
</tr>
<tr>
<td></td>
<td>Logically consolidated, physically distributed, Internet connected</td>
<td></td>
</tr>
</tbody>
</table>

GLOBAL BUSINESS/IT APPLICATIONS

The applications of information technology developed by global companies depend on their global business/IT strategies and their expertise and experience in IT. Their IT applications, however, also depend on a variety of global business drivers, that is, business requirements caused by the nature of the industry and its competitive or environmental forces. One example would be companies like airlines or hotel chains that have global customers who travel widely or have global operations. Such companies need global IT capabilities for online transaction processing so that they can provide fast, convenient service to their customers—or face losing them to their competitors. The economies of scale provided by global business operations are other business drivers that require the support of global IT applications. Figure 12.7 summarizes some of the business requirements that make global IT a competitive necessity.

Of course, many global IT applications, particularly finance, accounting, and office applications, have been in operation for many years. For example, most multinational companies have global
Figure 12.6 Examples of how transnational business and IT strategies were implemented by global companies.

<table>
<thead>
<tr>
<th>Tactic</th>
<th>Global Alliances</th>
<th>Global Sourcing and Logistics</th>
<th>Global Customer Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples</td>
<td>British Airways/US Airways KLM/Northwest Qantas/American</td>
<td>Benetton</td>
<td>American Express</td>
</tr>
<tr>
<td>IT Environment</td>
<td>Global network (online reservation system).</td>
<td>Global network, EPOS terminals in 4,000 stores, CAD/CAM in central manufacturing, robots and laser scanner in automated warehouse.</td>
<td>Global network linked from local branches and local merchants to the customer database and medical or legal referrals database.</td>
</tr>
<tr>
<td>Results</td>
<td>Coordination of schedules</td>
<td>Produce 2,000 sweaters per hour using CAD/CAM</td>
<td>Worldwide access to funds</td>
</tr>
<tr>
<td></td>
<td>Code sharing</td>
<td>Quick response (in stores in 10 days)</td>
<td>“Global Assist” hotline</td>
</tr>
<tr>
<td></td>
<td>Coordination of flights</td>
<td>Reduced inventories (just-in-time)</td>
<td>Emergency credit card replacement</td>
</tr>
<tr>
<td></td>
<td>Co-ownership</td>
<td></td>
<td>24-hour customer service</td>
</tr>
</tbody>
</table>

Figure 12.7 Some of the business reasons driving global business applications.

**Business Drivers of Global IT**

- **Global Customers.** Customers are people who may travel anywhere or companies with global operations. Global IT can help provide fast, convenient service.

- **Global Products.** Products are the same throughout the world or are assembled by subsidiaries throughout the world. Global IT can help manage worldwide marketing and quality control.

- **Global Operations.** Parts of a production or assembly process are assigned to subsidiaries based on changing economic or other conditions. Only global IT can support such geographic flexibility.

- **Global Resources.** The use and cost of common equipment, facilities, and people are shared by subsidiaries of a global company. Global IT can keep track of such shared resources.

- **Global Collaboration.** The knowledge and expertise of colleagues in a global company can be quickly accessed, shared, and organized to support individual or group efforts. Only global IT can support such enterprise collaboration.

financial budgeting, cash management systems, and office automation applications such as fax and e-mail systems. As global operations expand and global competition heats up, however, there is increasing pressure for companies to install global e-commerce and e-business applications for their customers and suppliers. Examples include global e-commerce Web sites and customer service systems for customers, and global supply chain management systems for suppliers. In the past, such systems relied almost exclusively on privately constructed or government-owned tele-communications networks; now the explosive business use of the Internet, intranets, and extranets for e-commerce has made such applications much more feasible for global companies.

**GLOBAL SYSTEMS DEVELOPMENT**

Just imagine the challenges of developing efficient, effective, and responsive applications for business end users domestically. Then, multiply that by the number of countries and cultures that may use a global e-business system. That’s the challenge of managing global systems development.
Naturally, there are conflicts over local versus global system requirements, as well as difficulties agreeing on common system features, such as multilingual user interfaces and flexible design standards. All of this effort must take place in an environment that promotes involvement and “ownership” of a system by local end users.

Other systems development issues arise from disturbances caused by systems implementation and maintenance activities. For example, “An interruption during a third shift in New York City will present midday service interruptions in Tokyo.” Another major development issue relates to the trade-offs between developing one system that can run on multiple computer and operating system platforms or letting each local site customize the software for its own platform.

Other important global systems development issues are concerned with global standardization of data definitions. Common data definitions are necessary for sharing data among the parts of an international business. Differences in language, culture, and technology platforms can make global data standardization quite difficult. For example, a sale may be called an “order booked” in the United Kingdom, an “order scheduled” in Germany, and an “order produced” in France. Yet, businesses are moving ahead to standardize data definitions and structures. By moving their subsidiaries into data modeling and database design, they hope to develop a global data architecture that supports their global business objectives.

Real World Case

RFID Implementation at Abhishek Industries

*RFID enables the company to gain better visibility and traceability of work in progress.*

The Ludhiana-based Abhishek Industries is one of the leading textile exporters, exporting to over 40 countries and supplying to the biggest brands in the retail market. Strict control over quality, therefore, becomes a given. The use of RFID technology, in conjunction with ERP, has helped the company drive greater operational efficiencies, eventually aiding in quality adherence.

**Problem Areas**

Abhishek Industries faced the challenge of tracking semi-finished goods in greige folding at its Terry Towel plant. It was critical for the company to track the Work In Progress to bring in the required operational efficiencies in the manufacturing process.

The greige stock area has running towels wound on very large pipes, called doffs. This is the stage between the weaving and dying stage. At any given point, there are around 1,000 doffs lying in the area. According to Ravi Tandon, CIO, Abhishek Industries, “Manual tracking of the doffs is a very cumbersome task and also throws open various challenges like locating the right doff. Though the doffs look similar, they may belong to different orders and have different characteristics and quality. A lot of time was lost in trying to locate the right doff as someone had to manually go through. There is also the probability of the doff coming in last and going out first, as that would be the easiest thing to do for the person handling it manually. So, ensuring the right sequence of first in, first out was becoming difficult.”

**RFID to the Rescue**

The company outlined on the RFID solution from Avaana to automate the tracking of doffs. As part of the solution, active RFID tags were placed on each of the doffs, while RFID readers were placed in strategic locations in the greige stock area. The data with respect to a particular doff is fed into the tag, which is then read by the RFID reader. As a result, the system can help the floor manager know the stock levels; and where are the physical stocks, whether there are any non-moving stocks. It also sends alarm signals when an unauthorized doffs are moved.

Tags have an up-to-date and real time status of doffs at any given point of time. So, if material has been taken from doffs and used, the tag will provide the latest position at that point of time. The company has integrated its RFID system with its SAP R/3 ERP system and ensured that the technology works consistently. The company invested around ₹25 lakh on the RFID implementation.

The implementation, however, was not without its set of challenges as the implementation partners had to work around the interference with metals. There was specific casing done for each tag, depending on which material it was going to be placed on.

The RFID implementation has given the company clear visibility of the WIP, something that it did not have before. Today, the company is able to determine the current position of the doff and is able to ensure its first in and out usage. This has led to saving time earlier lost in trying to locate which doff is lying where. Further, there has been an improvement in the operational efficiencies as the loader is now able to pick up the correct doff for the specific order. All this eventually helps in maintaining the required quality.
Abhishek Industries has outlined plans to extend the usage of the technology to other areas within the company as well. This includes areas like finished goods warehouse, cotton warehouse for raw material tracking, tracking of certain critical movable assets, and manpower access control and attendance. The pilot project for employee attendance recording and access control through RFID has already been done.

**Case Study Questions**

1. What are the key challenges that Abhishek Industries faced while implementing RFID technology?
2. Implementing RFID was Abhishek Industries’ own decision. Was it a part of the global strategy?
3. What are the key benefits that the company achieved by implementing RFID?


**Key Terms**

**Global Information Technology**  The use of computer-based information systems and telecommunications networks using a variety of information technologies to support global business operations and management.

**Offshoring**  A relocation of an organization’s business processes to a lower cost location overseas.

**Outsourcing**  Turning over all or part of an organization’s information systems operation to outside contractors, known as systems integrators or service providers.

**Technology Management**  The organizational responsibility to identify, introduce, and monitor the assimilation of new information system technologies into organizations.

**Transnational Strategy**  A management approach in which an organization integrates its global business activities through close cooperation and interdependence among its headquarters, operations, and international subsidiaries and its use of appropriate global information technologies.

**In Review**

Managing information technology can be viewed as managing three major components: (1) the joint development and implementation of e-business and IT strategies, (2) the development of e-business applications and the research and implementation of new information technologies, and (3) IT processes, professionals, and subunits within a company’s IT organization and IS function.

The international dimensions of managing global information technologies include dealing with cultural, political, and geoeconomic challenges posed by various countries; developing appropriate business and IT strategies for the global marketplace; and developing a portfolio of global e-business and ecommerce applications and an Internet-based technology platform to support them.

Many businesses are becoming global companies and moving toward transnational business strategies in which they integrate the global business activities of their subsidiaries and headquarters. This transition requires that they develop a global IT platform—that is, an integrated worldwide hardware, software, and Internet-based network architecture. Global companies are increasingly using the Internet and related technologies as a major component of this IT platform to develop and deliver global IT applications that meet their unique global business requirements.
Multiple-Choice Questions

1. Within an organization, managing the business/IT planning process so that IT is aligned with strategic business goals is the responsibility of:
   (a) The CIO
   (b) Both the CIO and the CEO
   (c) Both the CTO and the CEO
   (d) Both the CIO and the CSO

2. CIO and IT managers share responsibility for managing the work of IT professionals. In addition, they are responsible for managing the:
   (a) Hardware infrastructure
   (b) IT infrastructure of hardware, software, databases, and telecommunications networks
   (c) IT infrastructure of hardware and software
   (d) IT infrastructure of hardware, software, and human resources

3. A chief information officer (CIO):
   (a) Directs day-to-day information services activities
   (b) Develops and administers training programs for information services personnel and computer users
   (c) Is expected to closely supervise the internal operations of the information services department, but has limited responsibility for interfacing with other departments
   (d) Has major responsibility for long-term information system planning and strategy

4. All of the following were listed in the text as primary reasons behind a company’s decision to outsource except:
   (a) Achieving a greater return on investment
   (b) Achieving flexible staffing levels
   (c) Focusing on core competencies
   (d) Centralizing software development

5. What is the number one factor for successful outsourcing?
   (a) Reducing and controlling operating costs
   (b) Understanding the company’s goals and objectives
   (c) Commitment to quality
   (d) Sharing the risks

6. What is the number one factor for successful selection of an outsourcing vendor?
   (a) Senior executive support and involvement
   (b) Gaining access to world-class capabilities
   (c) Commitment to quality
   (d) Sharing risks

7. The text defines "offshoring" as:
   (a) Relocation of an organization's business processes to a lower-cost location, usually overseas
   (b) Relocation of an organization’s business processes to another firm better qualified to handle those processes
   (c) Relocation of an organization’s production, but not services, to a lower-cost location
   (d) Complete and total IT outsourcing

8. The text distinguishes between two types of "offshoring":
   (a) Domestic and international
   (b) Production and services
   (c) Complete and partial
   (d) Internal and external

9. All of the following are major dimensions of global IT challenges except:
   (a) Global business and IT strategies
   (b) Global business and IT application portfolios
   (c) Global IT platforms
   (d) Global software management
10. All of the following would be associated with a transnational e-business strategy except:
   (a) Global e-commerce and customer service
   (b) Global supply chain and logistics
   (c) Transparent manufacturing
   (d) Dissimilar systems and data

Discussion Questions

1. What has been the impact of information technologies on the work relationships, activities, and resources of managers?
2. What can business unit managers do about performance problems in the use of information technology and the development and operation of information systems in their business units?
3. How are Internet technologies affecting the structure and work roles of modern organizations? For example, will middle management wither away? Will companies consist primarily of self-directed project teams of knowledge workers? Explain your answers.
4. How might cultural, political, or geoeconomic challenges affect a global company’s use of the Internet? Give several examples.
5. Will the increasing use of the Internet by firms with global business operations change their move toward a transnational business strategy? Explain.

References