

Chapter 1 - Organisational Foundations of Information Systems

OBJECTIVE

To study and understand the basic computer hardware and software concepts.

LEARNING OUTCOMES:

After completing this chapter, you should be able to:

1. Evaluate the role of information systems in today's competitive business environment.
2. Define an information system from both a technical and business perspective and distinguish between computer literacy and information systems literacy.
3. Explain how information systems are transforming organisations and management.
4. Assess the relationship between the digital firm, electronic commerce, electronic business and Internet technology.
5. Identify the major management challenges to building and using information systems in organisations.

TOPIC OUTLINE:

- 1.1 The information systems revolution transforming business and management
- 1.2 The strategic role of information systems
- 1.3 Information systems, organisations and business process
- 1.4 Information, management and decision-making.
- 1.5 Ethical and social impact of information systems.

NOTES:

Information Age – A time when knowledge is power (helps gain a competitive advantage).

Knowledge worker – Works with and produces information as a product.

Management Information Systems (MIS) – A system that provides periodic and pre determined reports that summarize information within a database. Deals with the planning for, development, management, and use of information technology tools to help people perform all tasks related to information processing and management.

MIS Challenge – How to co-ordinate the use of a business's three most important resources – information, information technology, and people – while providing products and services at the customer's moment of value. Addresses three aspects:

What Businesses do: Service their clients

1. **Customer's moment of value:**
 - a. Providing service when the customer wants it (time)
 - b. Where the customer wants it (location)

- c. How the customer wants it (form)
 - d. In a manner guaranteed to the customer (perfect delivery)
2. The role of information technology: To supply a set of tools that provide the right people with the right information at the right time.

Important factors shaping the new business

1. **Globalization**
2. **Competition**
3. **Information**
4. **Virtual workplace and telecommuting**
5. **Electronic commerce**
6. **Knowledge worker computing**

The Role of Information Technology in the New Businesses

Information technology – One of three key resources in the MIS challenge. Any computer-based tool that people use to work with information and support the information and information-processing needs of an organization. How do businesses use it? They use IT in three ways:

1. To support information-processing tasks – Using tools to capture, convey, create, cradle, and communicate information.
2. As an enabler of innovation – Learning the basics of IT and then determining how IT can significantly alter what your business does to achieve the greatest advantage.
3. As a collapse of time and space – Bringing vast amounts of information together in one small place and using IT tools to shift quickly through that information.
“IT SPEED”

Information as Key Business Resource and its Dimensions

Information – Is one of the three key business resources in the MIS challenge, and it is the basis by which many organizations operate in today’s business environment.

Information is data that have a particular meaning within a specific context, and **data** are the raw facts or observations that describe a particular phenomenon.

Three dimensions of Information:

1. Time – Information that is timely and current

2. Content – Information that is accurate (free of errors), relevant (useful), and complete
3. Form – Information at the appropriate level of detail and provided in the most appropriate form (presentation – video, sound, colour, geographically)

Information Literate Knowledge Workers in the Information Age

Information literate knowledge worker – can define what information is needed, knows how and where to obtain information, understands the meaning of the information once received, and can act appropriately, based on the information, to help the organization achieve the greatest advantage. In all instances, an information literate knowledge worker always uses information according to ethical and legal constraints.

As information literate knowledge workers, you understand:

1. The dimensions of information – According to time, content and form.
2. Your charges – (1) defining what information you need, (2) knowing how and where to obtain it, (3) understanding the meaning of information, and (4) acting appropriately based on information. Meeting these 4 charges will define your ability to be a true innovator.
3. Your Charge as an ethical user of information – being socially responsible as you manage and use information.

Level of information literacy – Different levels or stages that describe your understanding of information. These levels include professional (understanding info at face value), expert, and innovator (understanding what the information truly means). **Managers** and expert deal with “what to think”. We can teach you “what to think” but not “how to think.” Your ability to learn how to think will define you as a true innovator.

Ethics – Sets of principles or standards that help guide behaviour, actions, and choices. Knowledge workers should be socially responsible.

Flaming – The distribution of an online communication that offends someone because of the use of obscene, derogatory, or inappropriate language.

Data – Raw facts or observations that describe a particular phenomenon.

Perfect Delivery – Understanding customer’s moment of value in terms of time, location and form, and taking the necessary steps to assure that these characteristics can be met.