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BAHAN AJAR MANAJEMEN INFORMASI AGRIBISNIS

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Bab 1:

Era Informasi dan Peran Teknologi Informasi dalam Bisnis

Learning Objective:

By the end of this unit you should be able to:

- 1. Define Information and what are its characteristics*
- 2. Describe the six characteristics of the Information Age and discuss the role of information technology as the principal tool of the Information Age*
- 3. Describe The Advantages And Disadvantages Of Information Technology*
- 4. Explain why information systems are so essential in business today.*

A. Information

“It will be sunny tomorrow;” “There are some men in the field”. “The turkey gave birth to a lion day before yesterday.” These statements convey to you something. It does not matter whether they are true or false, each is telling a story. The story being passed to you is what is known as information. Therefore Information is news passed to you either orally or in written. If the information given is true no matter who is giving it or when it is given it is said to be a fact or data.

Information could be classified based on the forms in which information can exist, the time of occurrence, and the frequency of occurrence.

- 1) Information classified based on form of existence include, written, oral, visual, and sensory.*
- 2) Information classified based on time of occurrence could be historical, present, and future.*

3) While information based on frequency of occurrence are those that are continuously, hourly, daily, weekly, monthly, and annually.

After receiving information the question of how to disseminate it now arises. Ideally for an item to be a piece of information, it has to be passed from one person to another and from one place to another. Information could be passed through an ancient or a modern method as summarised in the Table 1.1.

Table 1.1. Methods of Spreading Information.

Old methods of spreading Information	New methods of spreading Information
Oral, Town crier, Beating drums, Lighting fire, Drawing diagrams representations/symbols	Writing, Typing, Printing, Telephone, Telex, radio. TV, Fax, Satelite, Computer, E-mail

The oldest evidence of writing by man so far consists of clay tablets discovered at Sumer in Mesopotamia about 3000BC. These tablets contain records of grains received from, or issued to, individuals at a temple store. Since then the society has seen five distinct stages of information revolution. These stages are:

- 1) Invention of language
- 2) Invention of printing
- 3) Invention of mass media particularly radio and television
- 4) Invention of computer
- 5) Link-up of computers with communications devices and the development of the Internet.

B. The Evolution Of The Information Age

The evolution of the information age is classified into three basic groups:

1. **Agricultural Age:** The period up to the 1800s, when the majority of workers were farmers whose lives revolved around agriculture.
2. **Industrial Age:** The period from the 1800s to 1957, when work processes were simplified through mechanisation and automation.

3. **Information Age:** *The period that began in 1957, in which the majority of workers are involved in the creation, distribution, and application of information.*

Knowledge Workers: Workers involved in the creation, distribution, and application of information.

Table 1.2 The Evolution of Information Age

Characteristics	Agricultural Age	Industrial Age	Information Age
<i>Time Period</i>	<i>Pre 1800</i>	<i>1800 - 1957</i>	<i>1957 - Present</i>
<i>Majority of Workers</i>	<i>Farmers</i>	<i>Industrial Workers</i>	<i>Knowledge Workers</i>
<i>Partnership</i>	<i>People and Land</i>	<i>People and Machine</i>	<i>People and People</i>
<i>Principal Tool</i>	<i>Hand Tool</i>	<i>Machine</i>	<i>Information Technology</i>

Source: (Senn, 2000)

C. The Characteristics Of The Information Age

1. An information-based society has arisen

Information Society: A society in which more people work at handling information than at agriculture and manufacturing combined.

2. Businesses depend on information technology to get their work done.

3. Work processes are being transformed to increase productivity.

- *Work Processes: The combination of activities that workers perform, the way they perform those activities, and the tools they use.*
- *Productivity: The relationship between the results of an activity (output) and the resources used to create those results (inputs).*
- *Effectiveness: The extent to which desirable results are achieved.*

4. Information technology provides the means to rethink/recreate/reengineer conventional business processes.

- *Reengineering: The reshaping of business processes to remove barriers that prohibit an organization from providing better products and services and to help the organization capitalize on its strengths.*
 - *Business Processes: Collections of activities, often spanning several departments, that take one or more kinds of input and create a result that is of value to a company's customers.*
- 5. Success in business is largely determined by the effectiveness with which information technology is used.**
- 6. Information technology is embedded in many products and services.**
- 7. Reengineering efforts to attain greater productivity:**
- *Industrial Age - Division of Labor: Separation of work process into component task, with different workers specializing in each of the tasks.*
 - *Information Age - Teamwork, Interconnection, and Shared Information.*

D. The Principles and Functions of Information Technology

A principle is a fundamental rule, guideline, or motivating idea that, when applied to a situation, produces a desired result. ICT's great usefulness is an aid in solving problems, unlocking creativity, and making people more effective than they would be if they did not apply ICT to their activities.

Information Technology is made up of nine (9) major functions, namely; Capture, Verifying, Processing/Manipulation, Storage, Retrieval, Data Update, Reproducing, Transmit/Communication, and Generation.

- 1. Capture:** *The process of compiling detailed records of activities. This could be by recording of data from an event or occurrence, in some form such as sales slips, personnel forms, purchase orders, meters, course registration forms, etc.*
- 2. Verifying:** *Is the operation for checking or validating of data to ensure it was captured and recorded correctly.*
- 3. Processing/Manipulation:** *The process of converting, analysing, computing, and synthesising all forms of data or information.*