Sistem Informasi

Konsep Dasar SI Bagian II

Asep Wahyudin, M.T.
Ilmu Komputer
FPMIFA - Universitas Pendidikan Indonesia

Materi Kuliah :

Sistem dan Bisnis.

Memahami bisnis dan bagaimana bisnis tersebut berjalan pada sistem, bagaimana IT memberikan inovasi, Apa saja rintangan/tantangan dalam menajalankan sistem Bagaimana mengerti sistem dari sisi pandang bisnis proses dan bagaimana bisnis proses itu sendiri

1. Pendahuluan tentang bisnis, sistem dan IT
2. Mengerti sistem dari sisi pandang proses bisnis
3. Proses Bisnis

Buku Utama:

•Information System, foundation of e-business, Steven Alter, Prentice Hall, 2002.

Buku Tambahan:

Modern Systems Analysis and Design, Third Edition Jeffrey A. Hoffer et.all., Prentice Hall Inc., 2002.
Essential of System Analysis & Design, Valacich Joseph S., Prentice Hall Inc., 2001.
Modern System Analysis, Edward Yourdon, Prentice Hall Inc., 1989.
Modern MIS, Second Edition, Effy OZ

Kenapa Orang Membutuhkan Informasi?x

Individu → Entertainment dan Enlightment

Bisnis → Decision Making and Problem Solving

- Gathering
- Storing
- Manipulating

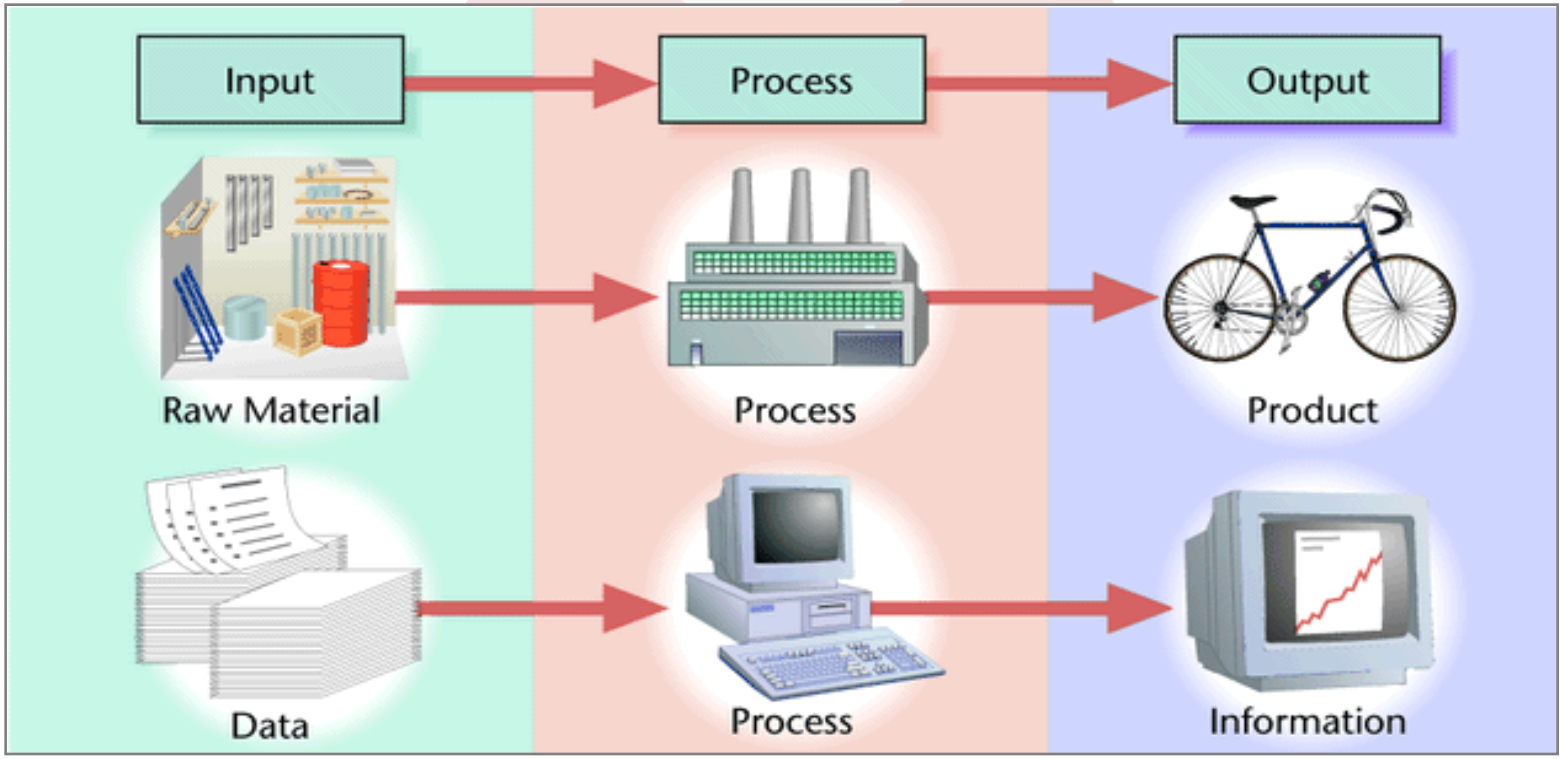
Data vs Information

- A "given," or fact; a number, a statement, or a picture
- The raw materials in the production of information

- Data that have meaning within a context
- Raw data or data that has been manipulated

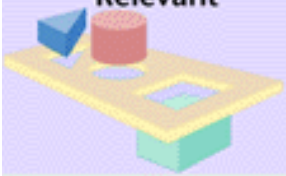
Generating Information

CBIS memperlakukan data sebagai *raw material*, mengolahnya dan menghasilkan informasi sebagai outputnya.



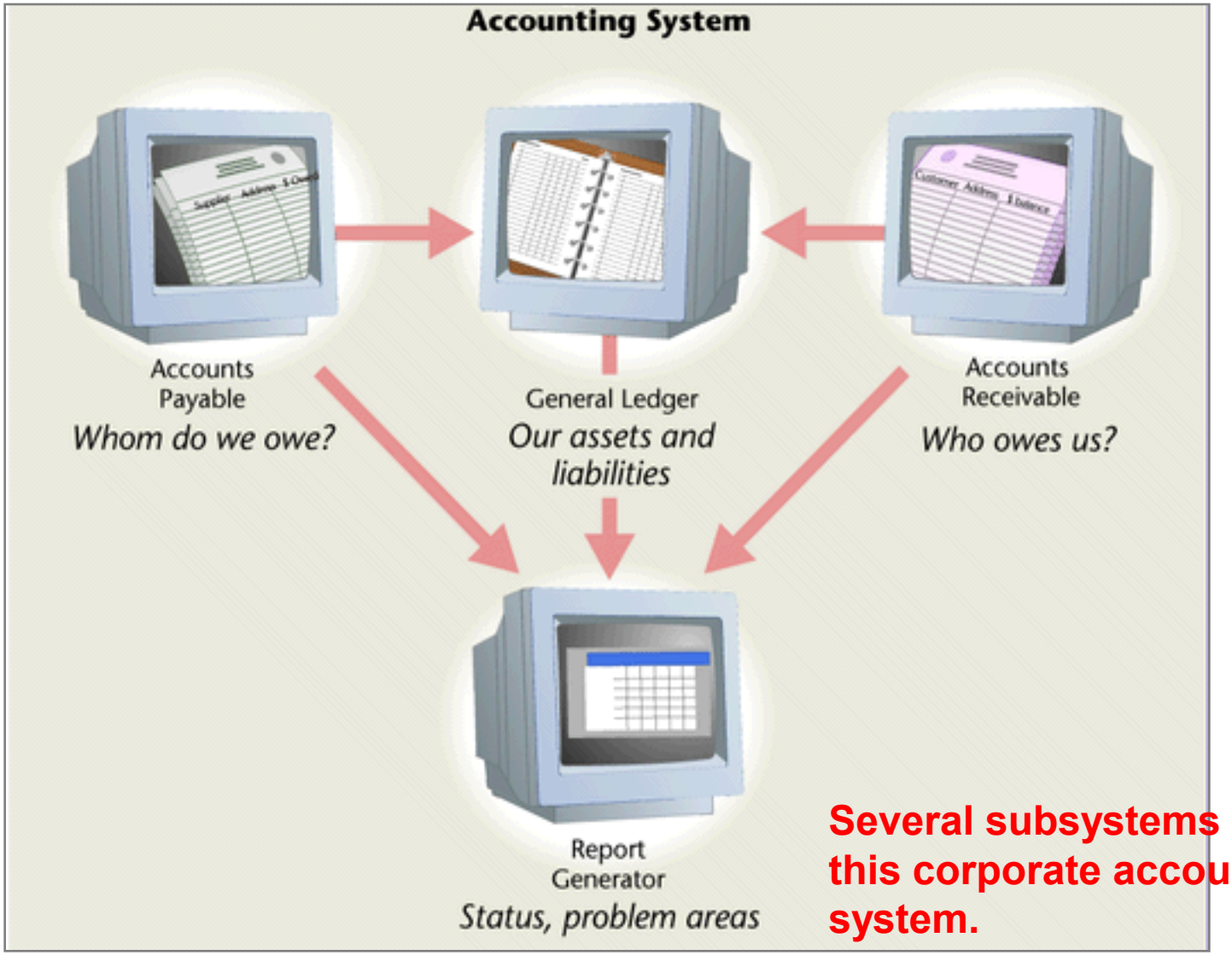
I - P - O

Karakteristik Informasi Berkualitas ?

Relevant 	Information must pertain to the problem at hand. For example, the total number of years of education may not be relevant to a person's qualifications for a new job. Relevant information might be that the person has so many years of education in mechanical engineering, and so many years of experience. The information must also be presented in a way that helps a person understand it in a specific context.
Complete 	Partial information is often worse than no information. For example, marketing data about household incomes may lead to bad decisions if not accompanied by vital information on the consumption habits of the targeted population.
Accurate 	Erroneous information may lead to disastrous decisions. For example, an inaccurate record of a patient's reaction to penicillin may lead a doctor to harm the patient while believing that she is helping him.
Current 	Decisions are often based upon the latest information available, but what was a fact yesterday may no longer be one today. For example, a short-term investment decision to purchase a stock today based on yesterday's stock prices may be a costly mistake if the stock's price has risen in the interim.
Economical 	In a business setting, the cost of obtaining information must be considered as one cost element involved in any decision. For example, demand for a new product must be researched to reduce risk of marketing failure, but if market research is too expensive, the cost of obtaining the information may diminish profit from sales.

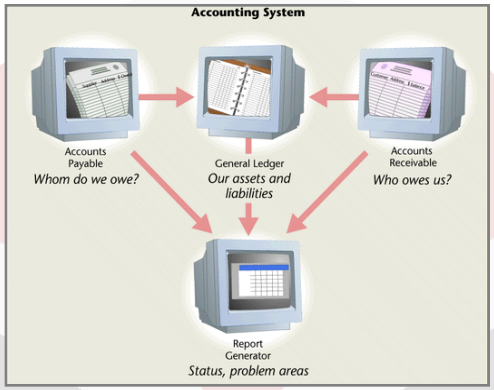
Sumber Lain → Timeless / Up to Date, Accurate, Relevan, Good Presentation

Data – Informasi – Subsistem – Sistem



Several subsystems make up this corporate accounting system.

Informasi dan Manajemen



System Thinking

Framework For Decision Making Process & Problem Solving

Keeps managers focused on overall goals and operations of business

Sinerji Manusia dan Komputer

Synergy

When combined resources produce output that exceeds the sum of the outputs of the same resources employed separately

↓

Benefit

↓

Allows human thought to be translated into efficient processing of large amounts of data

Sinerji Manusia dan Komputer

Humans	Computers
Think	Calculate and perform programmed logical operations extremely rapidly
Have common sense	Store and retrieve data and information extremely rapidly
Can make decisions	Perform complex logical and arithmetical functions accurately
Can instruct the computer what to do	Execute long, tedious operations
Can learn new methods and techniques	Perform routine tasks less expensively than humans
Can accumulate expertise	Are adaptable (can be programmed and reprogrammed)

Kualifikasi Manusia dan Komputer Menuju Sinerji Yang Baik Sebagai Sistem

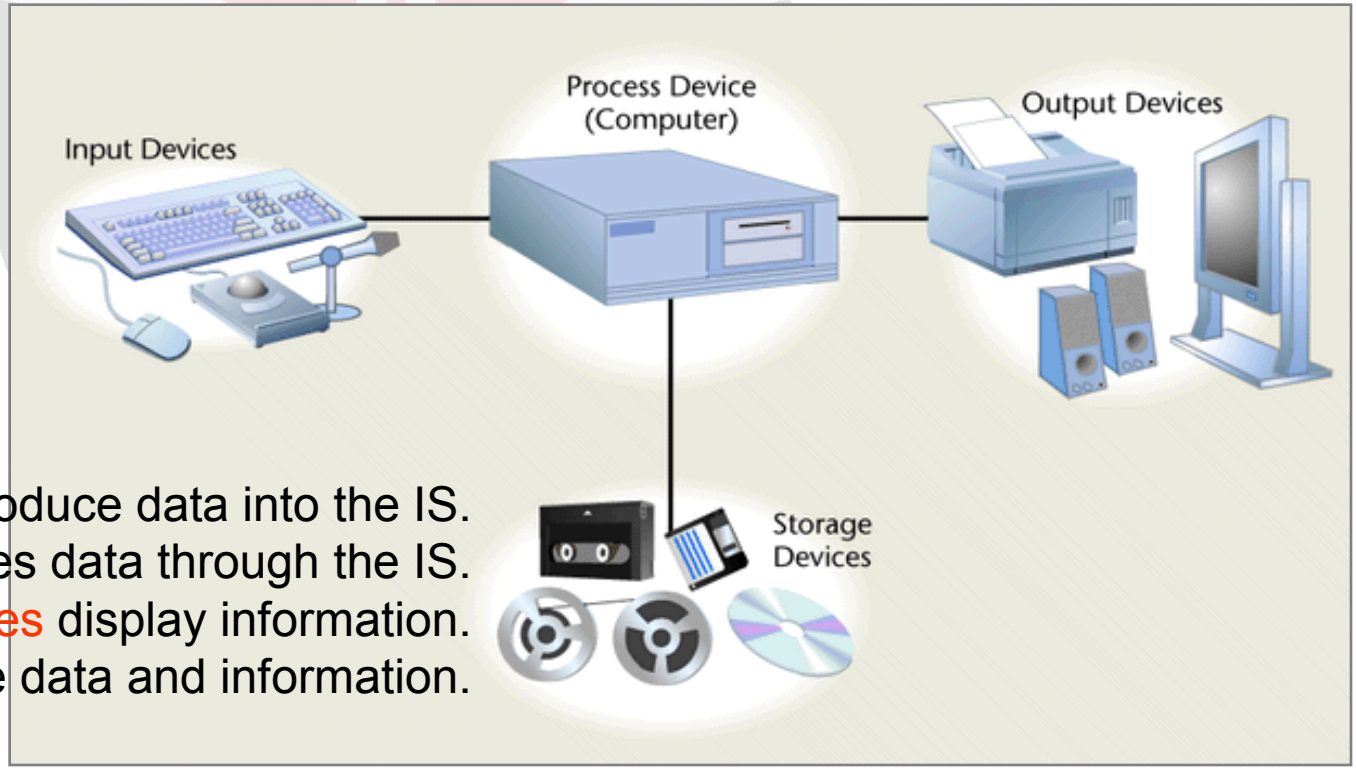
Komponen SI dalam Organisasi Secara Umum

- Data
- Hardware
- Software
- People
- Procedures

Data	Input that the system takes to produce information.
Hardware	A computer and its peripheral equipment: input, output, and storage devices. Hardware also includes data communication equipment.
Software	Sets of instructions that tell the computer how to take data in, how to process it, how to display information, and how to store data and information.
Telecommunications	Hardware and software that facilitate fast transmission and reception of text, pictures, sound, and animation in the form of electronic data.
People	Information systems professionals and users who analyze organizational information needs, design and construct information systems, write computer programs, operate the hardware, and maintain software.
Procedures	Rules for achieving optimal and secure operations in data processing. Procedures include priorities in running different applications on the computer and security measures.

Empat Tahapan SPD Secara Umum

- Input : Data is collected and entered into computer.
- Data Processing : Data is manipulated into information using mathematical, statistical, and other tools.
- Output : Information is displayed or presented.
- Storage : Data and information are maintained for later use.



Input devices introduce data into the IS.
The computer processes data through the IS.
Output devices display information.
Storage devices store data and information.

selesai