Sistem Informasi
(SI Fungsi Bisnis)
Based on : Management Information System, Second Edition, Effy Oz
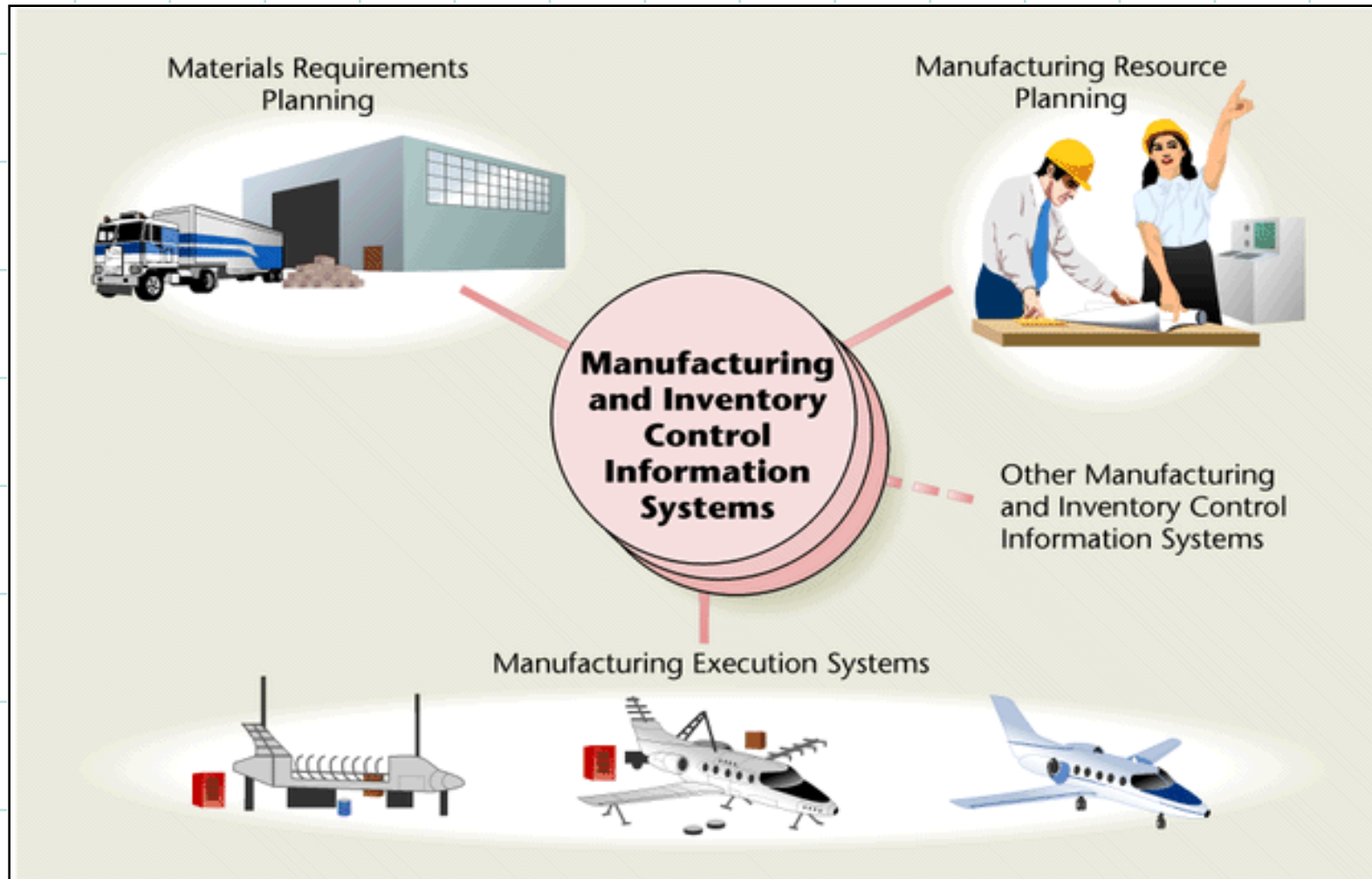
Asep Wahyudin, M.T.
Ilmu Komputer
FPMIFA - Universitas Pendidikan Indonesia

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Manufacturing and Inventory Control
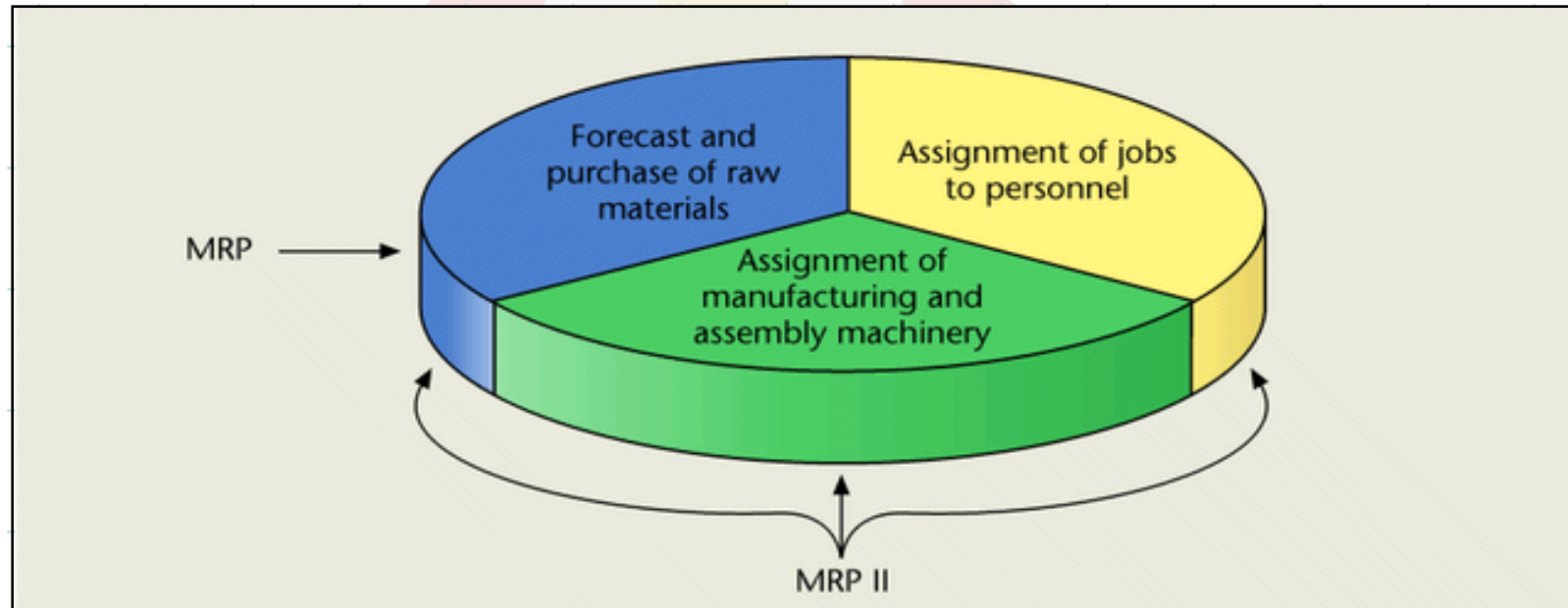

Manufacturing and inventory control information systems help reduce cycle times and the cost of maintaining inventory.

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Materials Requirement Planning (MRP)

- Take customer demand as initial input
  - Number of product units needed and when they are needed

- Use long-range forecasts to put long-lead material on order

- Help reduce inventory cost while ensuring availability

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Manufacturing and Inventory Control

Materials requirement planning and manufacturing resource planning

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Manufacturing Resource Planning (MRP II)

– Combines MRP with other manufacturing-related activities to plan the manufacturing process such as

- Shop activity control and purchasing

- Source of demand

- Customer order entry and forecasting

- Support functions such as financial management, sales analysis, and data collection

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Manufacturing Execution Systems (MES)

– Track, schedule, and control manufacturing processes

– Collect data such as

- Hours machine operates every day of the month
- Hours the machine is idle and why

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Marketing, Sales and Customer Services

Market Research

– Statistical models help market researchers find the best populations for new and existing products.

Targeted Marketing

– Database management systems (DBMS) help define potential customers as narrowly as possible.

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Marketing, Sales and Customer Services

Marketing and sales information systems help target potential buyers and serve clients.

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The Computer as a Marketing and Selling Medium

- Companies send customers promotional disks with information on their products and services.

- Commercial announcements are posted on public bulletin board systems.

- The Web lets companies reach more shoppers and serve them better.

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Marketing, Sales and Customer Services

	1997	1998	1999	2000	2001
Adult Home Web User (in millions)	46	81	121	145	159
Percentage of Users Buying on the Web	15%	18%	21%	24%	27%
Expenditure Per User Per Year	$146	$154	$155	$160	$165

Source: Deutsche Bank and Christiansen/Cummings Associates, 1999

The Past and Future of Selling on the Web

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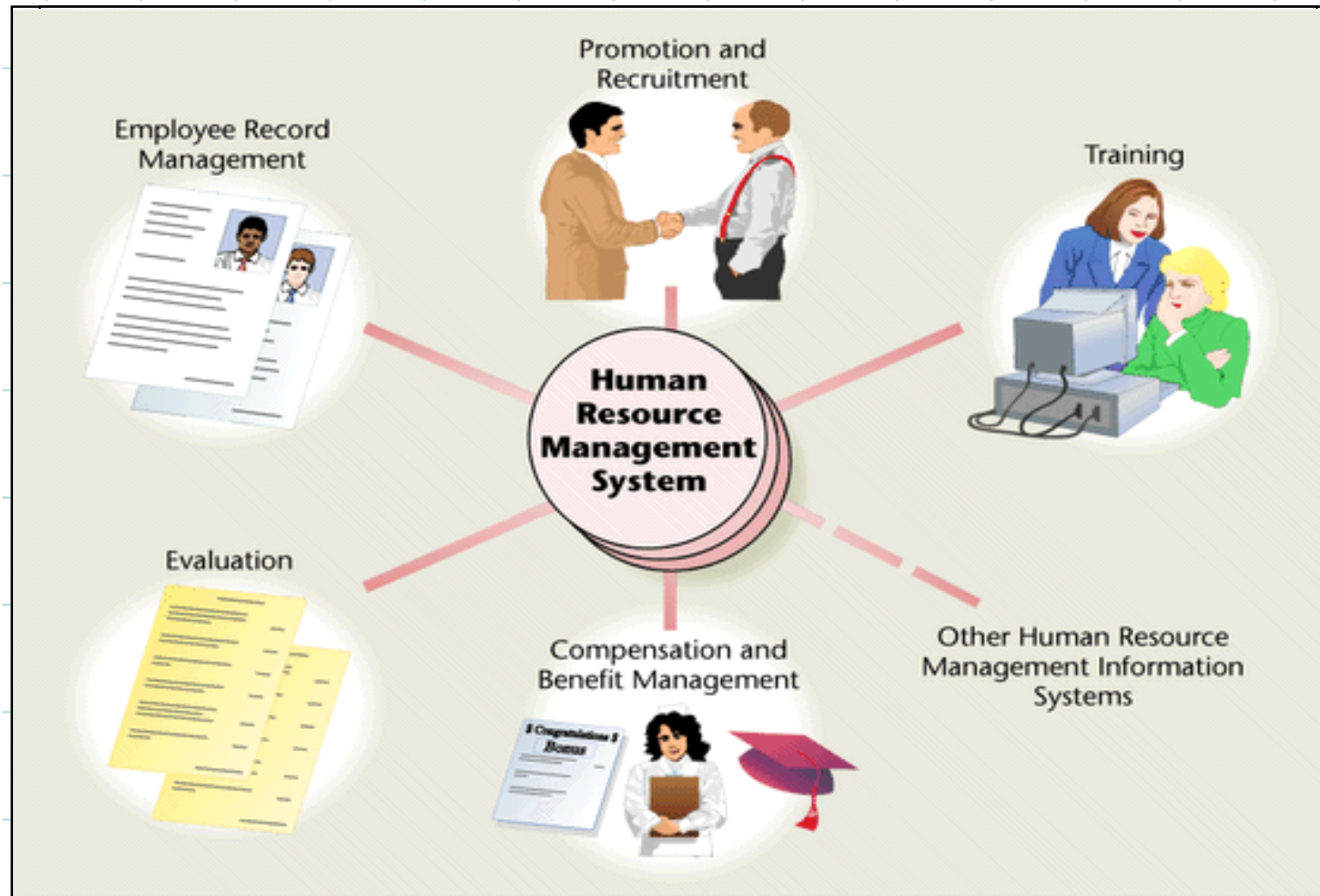# Marketing, Sales and Customer Services

- **Sales Force Automation**
  - Equipping salespeople with information technology to facilitate productivity.
    - IT allows salespeople to present different options for products and services on the spot.

- **Customer Service**
  - Customer service via the Web is available 24 hours/day, 7 days/week.
    - Saves companies labor hours and telephone expenses

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Human Resources

Human resource management information systems help managers optimize the assignment of employees and provide payroll, benefits, and other employee-related services.

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Human Resources

- **Employee Record Management**
  - Reduce space needed to store records, time to retrieve them, and costs of both

- **Promotion and Recruitment**
  - Search databases for qualified personnel
  - Use intranet to post job vacancies
  - Use the Web to recruit

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Training

– Multimedia software training is replacing classrooms and teachers.

– Training software simulates an actual task or situation and includes evaluation tools.

Evaluation

– Evaluation software helps standardize the evaluation process and adds a certain measure of objectivity and consistency.

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Compensation and Benefits Management

- ISs can help manage compensation efficiently and effectively.
    - Calculate salaries, hourly pay, commissions, and taxes
    - Automatically generate paychecks or direct deposits

- Special software helps manage benefits, such as health insurance, life insurance, retirement plans, and sick and leave days.

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Enterprise Resource Planning (ERP)

– All business functions served by one system that supports different activities for different departments

– Support supply chain management, the series of main and supporting activities from order to delivery.

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Groupware and Collaborative Work

- GroupWare lets workers in different locations communicate ideas, brainstorm, and work together as if they were in the same place.

- Document Control
  - Users can distribute and track electronic documents without working with outdated information.

- Collaborative Projects
  - Users can coordinate work on a single document from many different terminals.

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What is Privacy?

– One's right to control information about oneself.

– Not a constitutional right per se; secured by laws or convention.

– Increasing number of organizations may access information via better IT hardware and software.

– Business and civil rights advocates dispute degree of privacy vs. utility of information access.

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Business Arguments

- Necessary to collect basic financial and personal information as cheaply as possible

- Higher costs to all businesses absent readily available information

- Consumers benefit eventually from competitive environment augmented by readily available information

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Consumer Arguments

– Resent unsolicited mail and telephone calls

– Resent being refused credit because of credit bureau mistakes

– Frightened by 'dossier phenomenon"

– Loss of control over information unfair—information gathered for a particular purpose with permission should remain restricted

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Ethical and Societal Issues

Seven Commandments of Personal Data Collection and Maintenance

- Purpose. Companies should inform people who provide information of specific, *exclusive* purpose.

- Relevance. Companies should record and use only data necessary to fulfill their own purposes.

- Accuracy. Companies should ensure that their data are accurate.

- Currency. Companies should make sure that all data about an individual are current.

- Security. Companies should limit data access to only those who need to know.

- Time Limitation. Companies should retain data only for the time period necessary.

- Scrutiny. Companies should establish procedures to let individuals review their records and correct inaccuracies.

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