

SISTEM INFORMASI PERUSAHAAN

- Konsep dan definisi
- Evolusi SI eksekutif dan SI perusahaan
- Peran eksekutif dan kebutuhan informasi
- Karakteristik dan kemampuan sistem pendukung eksekutif
- Perbandingan dan integritasi SI eksekutif dengan SPK
- Soft informasi dalam SI
- Lahirnya SI perusahaan : PLM, BPM dan BAM

Referensi lihat SAP : [5] Bab 8,
[7] Chapter 8

Concepts and Definitions

- Executive information systems (EIS)
- Executive support systems (ESS)
- Enterprise information systems (EIS)

Evolution of Executive and Enterprise Information Systems

- DSS and ODSS
- 1980s: Top execs get Executive Information Systems
- 1995+'s: Move to everybody's information systems and enterprise information systems
- Definitions follow

Executive Information System (EIS)

- A computer-based system that serves the information needs of top executives
- Provides rapid access to timely information and direct access to management reports
- Very user-friendly, supported by graphics
- Provides exceptions reporting and "drill-down" capabilities
- Easily connected to the Internet
- Drill down

Executive Support System (ESS)

Comprehensive support system that goes beyond EIS to include

- Communications
- Office automation
- Analysis support
- Intelligence

Enterprise Information System

- Corporate-wide system
- Provides holistic information
- From a corporate view
- Part of enterprise resource planning (ERP) systems
- For business intelligence
- Leading up to enterprise information portals and knowledge management systems

Executives' Role and Their Information Needs

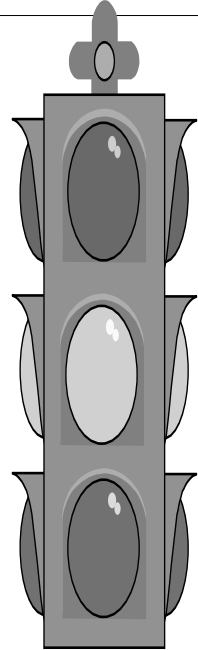
- Decisional Executive Role (2 Phases)
 1. Identification of problems and/or opportunities
 2. The decision of what to do about them
- Flow chart and information flow (Figure 8.1)
- Use phases to determine executives' information needs

Methods for Finding Information Needs

- Wetherbe's Approach
 1. Structured Interviews
 - IBM's Business System Planning (BSP)
 - Critical Success Factors (CSF)
 - Ends/Means (E/M) Analysis
 2. Prototyping
- Watson and Frolick's Approach
 - Asking (interview approach)
 - Deriving the needs from an existing information system
 - Synthesis from characteristics of the systems
 - Discovering (Prototyping)
 - Ten methods
- Other Methods

Characteristics of EIS

- Drill down
- Critical success Factors (CSF)
- Status access
- Analysis
- Exception reporting
- Colors and audio
- Navigation of information
- Communication



Critical Success Factors (CSF)

Monitored by five types of information

1. Key problem narratives
2. Highlight charts
3. Top-level financials
4. Key factors (key performance indicators (KPI))
5. Detailed KPI responsibility reports

Characteristics and Benefits of EIS (Table 8.1)

- Quality of information
- User interface
- Technical capability provided
- Benefits

Comparing and Integrating EIS and DSS

- Tables 8.2 and 8.3 compare the two systems
 - Table 8.2 - DSS definitions related to EIS
 - Table 8.3 - Comparison of EIS and DSS
- EIS is part of decision support

Integrating EIS and Group Support Systems

- EIS vendors - easy interfaces with GSS
- Some EIS built in Lotus Domino / Notes
- Comshare Inc. and Pilot Software, Inc. - Lotus Domino/Notes-based enhancements and Web/Internet/Intranet links

Traditional EIS Software

- Major Commercial EIS Software Vendors
 - Comshare Inc. (www.comshare.com)
 - Pilot Software Inc. (www.pilotsw.com)
- Application Development Tools
 - In-house components
 - Comshare Commander tools
 - Pilot Software's Command Center Plus and Pilot Decision Support Suite

Organizational DSS (ODSS)

- Three Types of Decision Support
 - Individual
 - Group
 - Organizational

Hackathorn and Keen (1981)
- Organizational decision support focuses on an organizational task or activity involving a sequence of operations and actors
- Each individual's activities must mesh closely with other people's work
- Computer support is for
 - Improving communication and coordination
 - Problem solving

Definitions of ODSS

- A combination of computer and communication technology designed to coordinate and disseminate decision-making across functional areas and hierarchical layers in order that decisions are congruent with organizational goals and management's shared interpretation of the competitive environment (R. T. Watson, 1990)
- A DSS that is used by individuals or groups at several workstations in more than one organizational unit who make varied (interrelated but autonomous) decisions using a common set of tools (Carter et al., 1992)
- A distributed decision support system (DDSS). Not a manager's DSS, but supports the organization's division of labor in decision making (Swanson and Zmud, 1990)
- Apply the technologies of computers and communications to enhance the organizational decision-making process. Vision of technological support for group processes to the higher level of organizations (King and Star, 1990)

Common Characteristics of ODSS (George, 1991)

- Focus is on an organizational task or activity or a decision that affects several organizational units or corporate problems
- Cuts across organizational functions or hierarchical layers
- Almost always involves computer-based technologies, and may involve communication technologies
- Can Integrate ODSS with Group DSS and Executive Information Systems
- ODSS are an enterprise information system directly concerned with decision support

Supply and Value Chains and Decision Support

- **Supply chain: (originally) flow of materials from sources to internal use**
- **Demand chain: flow from inside to customers**

Supply Chain

- **The flow of materials, information, and services from raw material suppliers through factories and warehouses to the end customers**
- **Includes the organizations and processes that create and deliver value to the end customers**

Supply Chain Management (SCM)

- **To deliver an effective supply chain and do it effectively**
- **To plan, organize, and coordinate the supply chain's activities**

SCM Benefits

- **Reduction in uncertainty and risks in the supply chain**
- **Positively affect**
 - **inventory levels**
 - **cycle time**
 - **processes**
 - **customer service**
- **Increase profitability**

Supply Chain Components

- **Upstream**
- **Internal supply chain**
- **Downstream**

**Involves product life cycle
activities**

Example (Figure 8.2)

Issues and Research

- GSS/EMS methods
- Web groupware
- Distance learning
- Virtual organization