

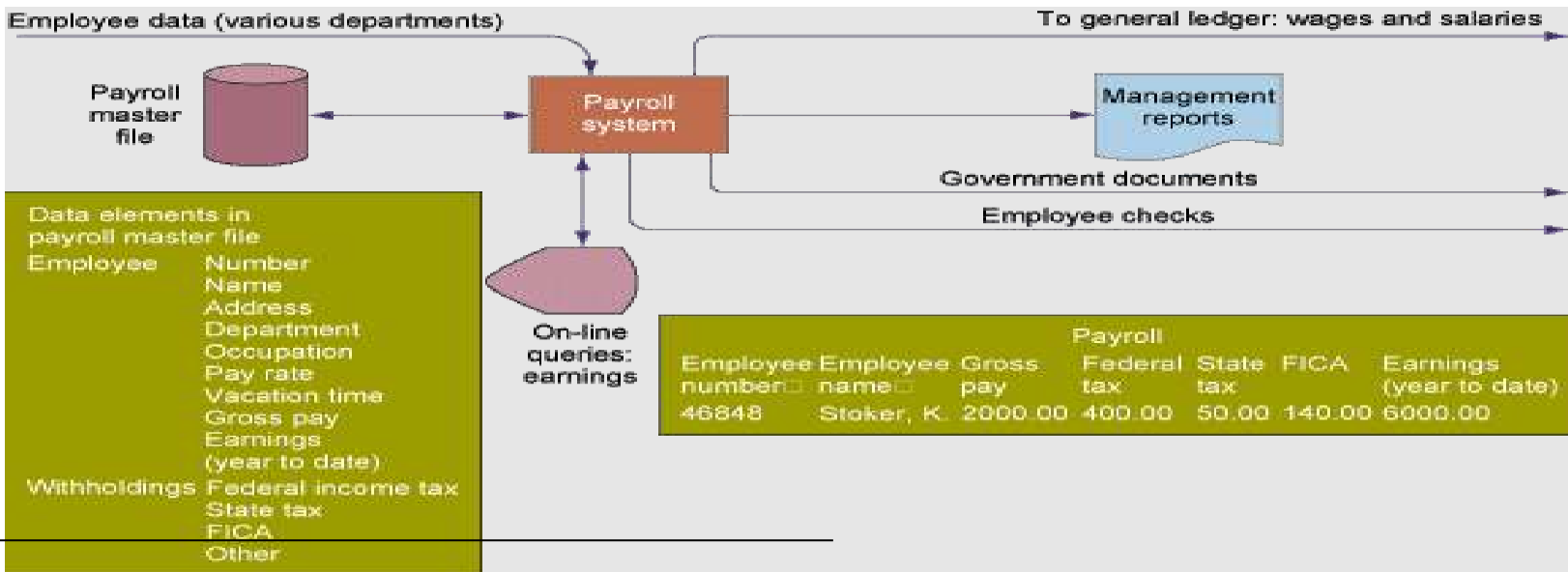
Information system classification

1. Executive Support Systems (ESS)
2. Decision Support Systems (DSS)
3. Management Information Systems (MIS)
4. Office Automation Systems (OAS)
5. Transaction Processing Systems (TPS)

Information System-TPS

- ❑ A system that records company transactions, in which a transaction is defined as an exchange between two or more business entities.
- ❑ TPS automates daily routine and repetitive tasks that are critical to the conduct of the business, such as preparing a payroll, billing customers, inventory control or order tracking.
- ❑ Data collected from this operation feed the MIS and DSS systems.

An example of TPS



Types of TPS

	TYPE OF TPS SYSTEM				
	Sales/ marketing systems	Manufacturing/ production systems	Finance/ accounting systems	Human resources systems	Other types (e.g., university)
Major functions of system	Sales management Market research Promotion Pricing New products	Scheduling Purchasing Shipping/receiving Engineering Operations	Budgeting General ledger Billing Cost accounting	Personnel records Benefits Compensation Labor relations Training	Admissions Grade records Course records Alumni
Major application systems	Sales order information system Market research system Sales commission system	Machine control systems Purchase order systems Quality control systems	General ledger Accounts receivable/payable Funds management systems	Payroll Employee records Benefit systems Career path systems	Registration system Student transcript system Curriculum class control systems Alumni benefactor system

INFORMATION SYSTEM-DSS

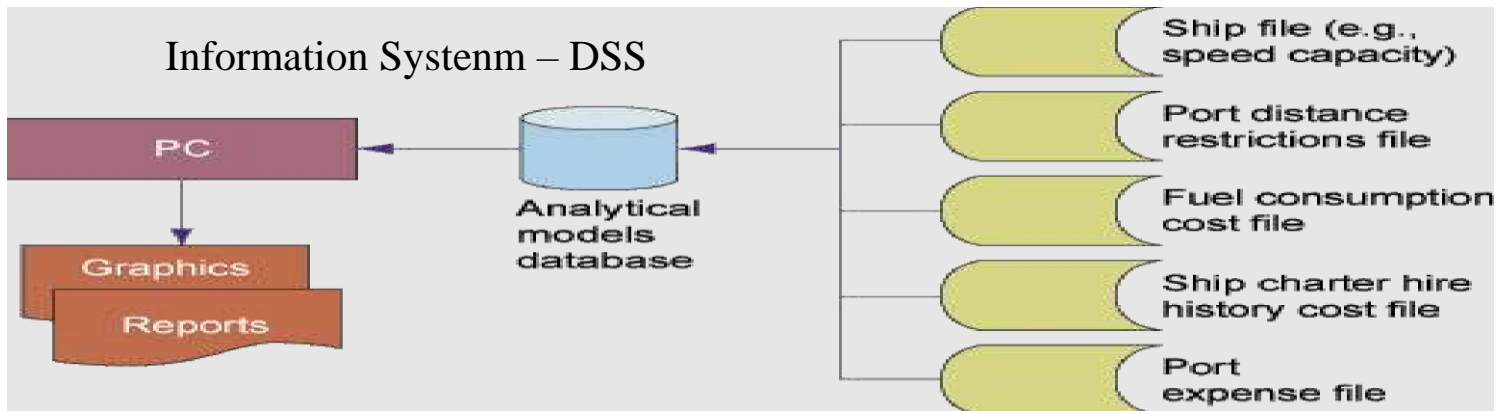
- ❑ A set of interactive software programs that provide managers with data, tools, and models to make semistructured decisions.
- ❑ Models: ready-made or created by user.
- ❑ Components of a Decision Support System:
 - Database management system (DBMS)
 - Model management system
 - Support tools

Types of decisions	Description
OPERATIONAL	Structured decisions. Routine, easily understood decisions that do not require intuition or judgment, focus on day-to-day operations.
TACTICAL	Semistructured decisions that are part routine and part intuitive.
STRATEGIC	Unstructured . Rely heavily on intuition, judgment, and experience.

Basic DSS methods

- Mathematical modeling
- Decision trees
- Simulation

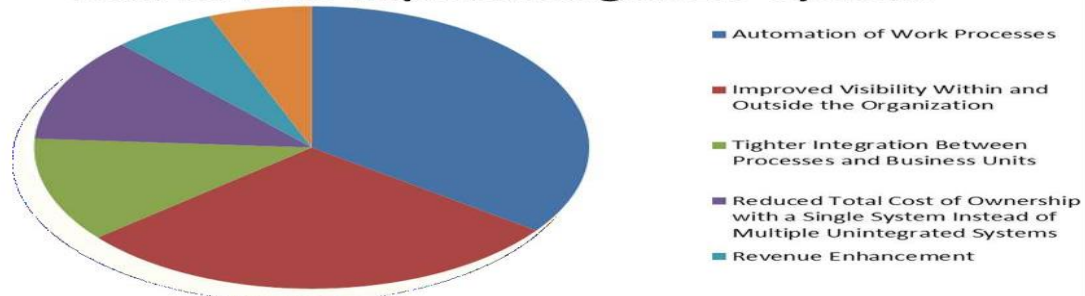
- Queuing theory
 - Statistical tools
 - Queries
 - What-If analysis
 - Sensivity analysis
-



ERP (Enterprise Resource Planning)

- Enterprise Resources Planning is a generic term for corporate computing integrated systems. An ERP system automates and integrates business processes found in manufacturing environments, including business processes on the plant production floor.
- ERP implies the use of packaged software rather than proprietary software written by or for one customer. ERP modules may be able to interface with an organization's own software with varying degrees of effort, and, depending on the software, ERP modules may be alterable via the vendor's proprietary tools as well as proprietary or standard programming languages.
- An ERP system can include software for manufacturing, order entry, accounts receivable and payable, general ledger, purchasing, warehousing, transportation and human resources.

What is the Key Benefit Your Organization Realized After Implementing an ERP System?



Benefits of ERP

- ❑ **Firm structure and organization:** One organization
- ❑ **Management:** Firm-wide knowledge-based management processes
- ❑ **Technology:** Unified platform
- ❑ **Business:** More efficient operations and customer-driven business processes

ERP System



Challenges ERP

- ❑ **Difficult to build:** Require fundamental changes in the way the business time, money, and expertise operates
- ❑ **Technology:** Require complex pieces of software and large investments of

Customer Relationship Management

- ❑ Manages all ways used by firms to deal with existing and potential new customers.

- Uses information system to coordinate entire business processes of a firm.
- Provides end-to-end customer care.
- Provides a unified view of customer across the company.
 - Consolidates customer data from multiple sources and provides analytical tools for answering question.

CRM include systems containing the majority (not necessary all) of the following modules:

- Sale:
 - contact management (policies, structure, history, sales contacts)
 - account management (generating quotes, orders, transactions),
 - sales analysis,
 - monitor the status of customer and potential business contacts;
- Timetable and correspondence management:
 - calendar and users database (groups)
 - support traditional and electronic mail (fax, e-mail);
- Marketing:
 - campaign management,
 - catalogue of products
 - product configurator,
 - pricing and offers,
 - analysis of the effectiveness of the campaign,
 - distribution of information about customers interested in the offer;

- Telemarketing:
 - preparing the telephone lists by target groups,
 - automatic dialling,
 - generating lists of potential customers,
 - collection of orders;
- Customer service and support after the sale:
 - assigning, tracking and reporting tasks,
 - service problem management,
 - control orders,
 - warranty and post-warranty;
- Integration with ERP systems (finance, accounting, manufacturing, distribution, human resource management);
- Data synchronization - applies to the interaction between the devices (e.g. laptops) and the central database and application servers;
- E-commers – handling e-commerce;
- Call center – telephone customer support.

Executive Support System (ESS)

- ESS systems or Enterprise Information Systems (EIS) originally were implemented to support Senior management. These systems have been expanded to support other managers within the enterprise.
- At the senior management level they support strategic activities which deal with situations that significantly may change the manner in which business is done.
 - Inputs: [aggregate data](#)

- Processing: interactive
- Outputs: projections

Example: 5-year business plan

Executive support system

