Enterprise Computing Strategy
ISM 5155

Transaction Processing & Enterprise
Resource Planning Systems

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Resource Planning Systems

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Principles and Learning Objectives

• An organization’s TPS must support the routine, day-to-day activities that occur in the normal course of business and help a company add value to its products and services.

  – Identify the basic activities and business objectives common to all transaction processing systems.

  – Describe the inputs, processing, and outputs for the transaction processing systems associated with order, purchasing, and accounting business processes.

Principles and Learning Objectives

• TPSs help multinational corporations form business links with their business partners, customers, and subsidiaries.

  – Identify the challenges that multinational corporations must face in planning, building, and operating their TPSs.
Principles and Learning Objectives

• Implementation of an enterprise resource planning system enables a company to achieve numerous business benefits through the creation of a highly integrated set of systems.

  – Define the term enterprise resource planning system and discuss the advantages and disadvantages associated with the implementation of such a system.

An Overview of Transaction Processing Systems
Transaction Processing Systems

Data entry and input

Internally Generated Transactions
- Shipped orders
- Purchase orders
- Employee timecards

Externally Generated Transactions
- Customer orders
- Vendor invoices
- Customer payments

Database

Database Update
- Customer orders
- Inventory
- Purchase orders
- Customers
- Suppliers

Processing

Documents and reports

Documents
- Purchase orders
- Checks to vendors
- Receiving reports
- Paychecks

Operational Reports
- Finished products
- Inventory status
- Raw materials, packing materials, spare parts
- Inventory statistics

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Traditional Transaction Processing Methods & Objectives

- Batch processing systems
- On-line transaction processing (OLTP)
- On-line entry with delayed processing
- Process data generated by and about transactions
- Process data generated for and about transactions
- Maintain a high degree of accuracy and integrity
- Produce timely documents & reports

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Traditional Transaction Processing Methods & Objectives

- Increase labor efficiency
- Help provide improved service
- Help build and maintain customer loyalty
- Achieve competitive advantage
Integration of a Firm’s TPSs

Advantages of ERP

- Eliminates costly, inflexible legacy systems
- Improved technology infrastructure
- Improved work processes
- Increased data access for decision making
Disadvantages of ERP

- Expense & time
- Radical change
- Integrating with other systems
- One vendor risks

Control & Management Issues

- Business resumption planning
- Disaster recovery & Backups
Summary

• **Transaction Processing Systems** - consist of all components of a CBIS, including databases, telecommunications, and people

• **Transaction Processing Systems Methods** - batch, on-line, and on-line with delayed processing

• **Enterprise resource planning (ERP) software** - a set of integrated programs that manage a company’s vital business operations for an entire multisite, global organization

Thank you!

Any questions? Please send an e-mail to mhepp@computer.org!

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