Accounting Information Systems

Learning Objectives

- Explain what an accounting information system (AIS) is and describe the basic functions it performs.
- Discuss why studying the design and management of an AIS is important.

Learning Objectives

- Explain the role played by the AIS in a company's value chain and discuss ways that the AIS can add value to a business.
- Describe and contrast the basic strategies and strategic positions that a business can adopt.

What Is An AIS?

- A system is a set of two or more interrelated components that interact to achieve a goal.
- Systems are almost always composed of smaller subsystems, each performing a specific function supportive of the larger system.

What is an AIS?

- An AIS is an information system
  - which identifies, collects, processes, and communicates economic information about an entity to a wide variety of people regardless of the technology
  - captures and records the financial effects of the firm's transactions
  - distributes transaction information to operations personnel to coordinate many key tasks

What is an AIS?

- An Accounting Information System is a unified structure that employs physical resources and components to transform economic data into accounting information for external and internal users.

What Is An AIS?

- An accounting information system (AIS) consists of:
  - People
  - Procedures
  - Data
  - Software
  - Information technology infrastructure

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What Is An AIS?

- What important functions does the AIS perform in an organization?
  - It collects and stores data about activities and transactions.
  - It processes data into information that is useful for making decisions.
  - It provides adequate controls to safeguard the organization's assets.

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AIS vs. MIS

- **Accounting Information Systems** (AISs) process financial (e.g., sale of goods) and nonfinancial transactions (e.g., addition of newly approved vendor) that directly affect the processing of financial transactions.
- **Management Information Systems** (MISs) process nonfinancial transactions that are not normally processed by traditional AISs (e.g., tracking customer complaints).

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AIS vs. MIS?

IS

AIS — MIS

GLS/FRS | TPS | MRS | Finance | Marketing | Production | HRS | Distribution
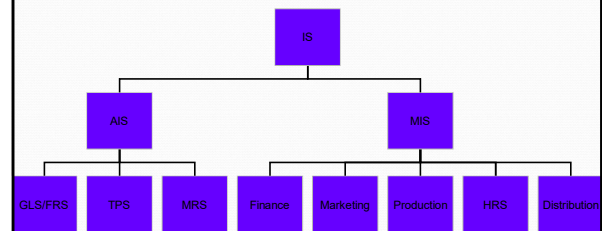
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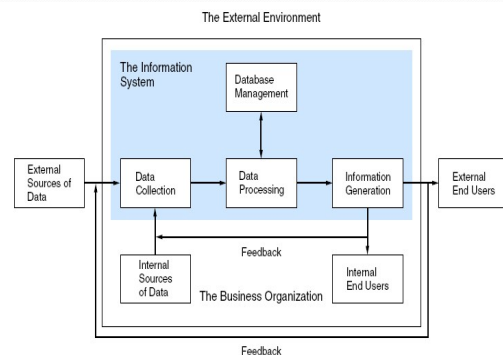## AIS Subsystems

- **Transaction processing system (TPS)**
  - supports daily business operations
- **General Ledger/ Financial Reporting System (GL/FRS)**
  - produces financial statements and reports
- **Management Reporting System (MRS)**
  - produces special-purpose reports for internal use

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The General AIS Model

The External Environment

The Information System

External Sources of Data → Data Collection → Data Processing → Information Generation → External End Users

Database Management

Internal Sources of Data

Feedback

The Business Organization

Internal End Users

Feedback

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Data Sources

- **Data sources** are financial transactions that enter the information system from internal and external sources.
  - *External financial transactions* are the most common source of data for most organizations.
    - E.g., sale of goods and services, purchase of inventory, receipt of cash, and disbursement of cash (including payroll)

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Data Sources

- *Internal financial transactions* involve the exchange or movement of resources within the organization.
  - E.g., movement of raw materials into work-in-process (WIP), application of labor and overhead to WIP, transfer of WIP into finished goods inventory, and depreciation of equipment

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Transforming the Data into Information

Functions for transforming data into information according to the general AIS model:

1. data Collection
2. data Processing
3. data Management
4. information Generation

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1. Data Collection

- Capturing transaction data
- Recording data onto forms
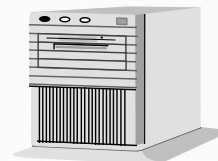- Validating and editing the data

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2. Data Processing

- Classifying
- Transcribing
- Sorting
- Batching
- Merging
- Calculating
- Summarizing
- Comparing

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3. Data Management

- Storing
- Retrieving
- Deleting

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4. Information Generation

- Compiling
- Arranging
- Formatting
- Presenting

Organizational Structure

- The structure of an organization helps to allocate
  - responsibility
  - authority
  - accountability
- Segmenting by business function is a very common method of organizing.

Functional Areas

- Inventory/Materials Management
  - purchasing, receiving and stores
- Production
  - production planning, quality control, and maintenance
- Marketing
- Distribution
- Personnel
- Finance
- Accounting
- Computer Services

Accounting Independence

- Information reliability requires **accounting independence**:
  - Accounting activities must be separate and independent of the functional areas maintaining resources.
  - Accounting supports these functions with information but does not actively participate.
  - Decisions-makers in these functions require that such vital information be supplied by an independent source to ensure its integrity.

WHY STUDY ACCOUNTING INFORMATION SYSTEMS?

- It's fundamental to accounting.
- Accounting is an information-providing activity, so accountants need to understand:
  - How the system that provides that information is designed, implemented, and used.
  - How financial information is reported.
  - How information is used to make decisions.

Why Study AIS?

- To understand how the accounting system works.
  - How to collect data about an organization's activities and transactions
  - How to transform that data into information that management can use to run the organization
  - How to ensure the availability, reliability, and accuracy of that information

Why Study AIS?

- Auditors need to understand the systems that are used to produce a company's financial statements.
- Tax professionals need to understand enough about the client's AIS to be confident that the information used for tax planning and compliance work is complete and accurate.

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Why Study AIS?

- The AIS course complements other systems courses.
- Other systems courses focus on design and implementation of information systems, databases, expert systems, and telecommunications.
- AIS courses focus on accountability and control.

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