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 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 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.

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What Is An AIS?

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

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.

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).

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

The General AIS Model
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)

- **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

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

1. Data Collection
   - Capturing transaction data
   - Recording data onto forms
   - Validating and editing the data

2. Data Processing
   - Classifying
   - Transcribing
   - Sorting
   - Batching
   - Merging
   - Calculating
   - Summarizing
   - Comparing

3. Data Management
   - Storing
   - Retrieving
   - Deleting
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.

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.